OVERSIGHT OF THE SEC'S AGENDA, OPERATIONS, AND FY 2015 BUDGET REQUEST

HEARING

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CONTENTS

OVERSIGHT OF THE SEC'S AGENDA, OPERATIONS, AND FY 2015 BUDGET REQUEST

Tuesday, April 29, 2014

U.S. HOUSE OF REPRESENTATIVES,
COMMITTEE ON FINANCIAL SERVICES,
Washington, D.C.

The committee met, pursuant to notice, at 10 a.m., in room 2128, Rayburn House Office Building, Hon. Jeb Hensarling [chairman of the committee] presiding.

Members present: Representatives Hensarling, Bachus, Royce, Capito, Garrett, Neugebauer, McHenry, Pearce, Posey, Fitzpatrick, Luetkemeyer, Huizenga, Duffy, Hurt, Stivers, Fincher, Stutzman, Mulvaney, Hultgren, Ross, Pittenger, Wagner, Barr, Cotton, Rothfus; Waters, Maloney, Velazquez, Sherman, Capuano, Lynch, Scott, Green, Cleaver, Moore, Perlmutter, Himes, Peters, Carney, Sewell, Foster, Kildee, Delaney, Sinema, Beatty, Heck, and Horsford.

Chairman HENSARLING. The committee will come to order. Without objection, the Chair is authorized to declare a recess of the committee at any time.

Today's hearing is entitled, "Oversight of the SEC's Agenda, Operations, and FY 2015 Budget Request." I now recognize myself for 5 minutes to give an opening statement.

This morning, we welcome Securities and Exchange Commission Chair Mary Jo White back to the committee. I wish to note at the outset for the record, contrary to many, if not most Administration witnesses, she has been most accommodating with her schedule, and she is timely with the submission of her testimony, so Madam Chair, you are especially welcome before this committee. We appreciate your cooperation in the congressional oversight process.

This committee is indeed committed to conducting vigorous oversight of the SEC, to make certain that it is accountable in fulfilling its mission of maintaining transparent and efficient capital markets, protecting investors, and promoting capital formation. By holding today's hearing, we hope to better understand the progress the Commission is making in fulfilling its statutory mission and to have a better understanding of Chair White's relative priorities.

A number of members on this committee have maintained that the SEC has insufficient resources with which to carry out its mission. I will always have an open mind on the issue, but it is not an empty mind. The SEC's budget has grown substantially in recent years. In fact, the SEC's budget has increased by 80 percent

in the last 10 years and by nearly 300 percent since the year 2000. I again note that when my Democratic colleagues were in the Majority, even after the passage of the Dodd-Frank Act, they never called for the dramatic budget increases they are calling for now. Not many other agencies throughout the entirety of the Federal Government have seen such hefty budget increases during this same period of time, and I don't know many folks in Texas' 5th Congressional District, which I have the honor of representing, whose family budget has seen an 80 percent increase in the last 10 years.

In addition, as we see the national debt clock regrettably continue to turn at the pace that we have observed, this is something that must loom large over all of our budgetary decisions. I know that some have considered the placement of the clock to be ideological. I personally never knew that math was ideological. Many of us believe that the SEC has given short shrift historically to capital formation. The bipartisan JOBS Act was an attempt to help remedy past SEC inaction on capital formation initiatives.

Even President Obama, with whom I rarely agree, called the law a game changer for entrepreneurs in capital formation. Regrettably, the SEC remains behind schedule in implementing the JOBS Act. It is important that the implementation of the JOBS Act go forward.

Regrettably, we still live in an economy where 1 in 6 people are on food stamps. We have the lowest labor force participation rate in a generation where 15 percent of our fellow country men are at the poverty level in median family income, having fallen every year in the Obama Administration. Clearly, we have millions of our fellow countrymen unemployed or underemployed, who could benefit from the full implementation of the JOBS Act.

During the same period when SEC budgets increased so dramatically, regrettably, there were numerous examples of the agency's financial mismanagement, squandered resources, and mission failure. I hasten to add that almost all of these examples predate Chair White's tenure, but it does underscore that in Washington it is not always how much money you spend that counts, but how you spend the money.

Even though the SEC, I believe, had ample resources and ample authority leading up to the 2000 crisis, clearly somebody was asleep at the switch. Whether it was the failure to properly administer the now defunct consolidated supervised entities program, regrettably not doing anything about the credit rating agency oligopoly and the role that played in the crisis, or the failure to uncover the Madoff and Stanford Ponzi schemes, notwithstanding the warnings received from multiple market professionals.

In addition, regrettably, and notably for an agency that is entrusted with policing financial markets and enforcing accounting standards, the SEC has repeatedly failed audits of its own financial statements and internal controls conducted by the GAO, which begs the question, how will asking for more funding necessarily prevent future fumbles? How the SEC spends its budget is a legitimate concern, and so is how the SEC spends its time. According to one report, the SEC has finalized less than half of its required

rulemakings under Dodd-Frank nearly 4 years after the law was enacted.

We continue to need to hold Washington accountable. We need to ensure that Washington uses resources wisely and efficiently, and we need to ensure that we repeal any unnecessary, ill-conceived Washington regulations that hurt our economy and kill jobs.

I look forward to listening to Chair White's testimony and continuing to hear about some of the pressing issues of the day concerning the SIFI designations of non-bank entities through FSOC, the fiduciary duty versus the suitability standards of broker-dealers, issues relating to market structure, and issues regarding whether the presence of a robust cost-benefit analysis will ultimately benefit some many of our Americans who remain unemployed and underemployed.

I now recognize the ranking member for 4 minutes.

Ms. WATERS. Thank you, Mr. Chairman, for holding this important hearing this morning.

And thank you to Chair White for appearing before the committee and offering your overview of the agenda and operations of the SEC.

It has been nearly 4 years since the passage of the historic Dodd-Frank Wall Street Reform and Consumer Protection Act, and we have come a long way. The Commission has completed critical work, and we now have in place the registration of hedge fund and other private fund advisors, the appointment of an investor advocate, and the finalization of the Volcker Rule, among other accomplishments.

Even in the face of near constant attempts by my friends on the opposite side of the aisle to roll back the Dodd-Frank reforms, not to mention the SEC's inadequate funding, the Commission is moving forward on this essential work, but much more remains to be completed. Most notably, the SEC still has to adapt final versions of most of the substantive swap rules under Dodd-Frank. Given the number of these rules still awaiting completion, as well as the legal challenges facing the Commodity Futures Trading Commission (CFTC), I remain very concerned that our swaps markets will remain a source of shadowy unregulated risk, and as it relates to the JOBS Act, I also urge the Commission to move expeditiously to finalize the amendments to Rule 506 offerings that they proposed in July of last year.

Given that private offerings with general solicitation and advertising are currently taking place, we must also move to put in place reasonable investor protections that will guard against fraud. I am also going to hear from Chair White on her view of the SEC's Fiscal Year 2015 budget and how the Commission would use the additional resources they have requested.

In particular, I agree with the Chair, who knows that there is an immediate and pressing need for significant additional resources to permit the SEC to increase its examination coverage of registered investment advisors. I hope that the Chair can further elaborate on this need and also weigh in on the Investor Advisory Committee's recommendation that Congress authorize the Commission to impose user fees on SEC-registered investment advisors in

order to fund and enhance the examination program. This recommendation is consistent with my bill, H.R. 1627.

Finally, I remain very interested in how the Enforcement Division at the Commission selects which cases to pursue, and how the Commission is responding to criticisms that it relies too heavily on deferred prosecution agreements, and neither-admit-nor-deny settlement.

The Chair came into this position at the SEC with a reputation as a tough litigator, and I would like to hear more about the Commission's enforcement program during her tenure.

Obviously, the Commission has a lot on its plate, and I commend the Chair for taking on this important work and for being with us today, and I yield back the balance of my time.

Chairman HENSARLING. The Chair now recognizes the gentleman from New Jersey, the chairman of our Capital Markets and GSEs Subcommittee, Mr. Garrett, for 3 minutes.

Mr. GARRETT. Thank you, Mr. Chairman, for holding this important oversight hearing.

And thank you, Chair White, for joining us and for your testimony.

Lately, there has been a lot of news attention surrounding the Nation's equity markets, and I want to thank you, Chair White, for prioritizing the examination of this issue long before the recent media outcry, and for you and your staff's work in this area as well. I believe that you and your staff are approaching the ongoing review of our equity markets in just the way that it should be, taking a look at the entire marketplace, examining how the rules require various market participants to interact, and using empirical data and robust analytical tools to drive any potential decision-making.

It is critical that you and your agency do not fall into the trap of adopting some half-baked potential changes in order to publicly respond to sensationalized and overhyped media narratives. The SEC has to be the grownup in the room in this very important decision-making. So this committee now has been approaching this very important issue in the same manner. In June of 2012, we held the first of a series of events to more closely examine our Nation's equity markets and study how they operate, understand which rules govern them, and explore ways to make them function more efficiently and effectively.

In May of 2013, Ranking Member Maloney and I hosted a roundtable in New York City with some of the most knowledgeable people in the country, including the SEC's new Director of Trading and Markets, to review the entire evolution of the statutory and regulatory history governing our equity markets. And most recently, at the end of February this committee held an extensive review of Reg NMS, which is the predominant SEC rule governing how the market centers and market orders are required to interact.

This hearing raised important fundamental questions challenging some of the current assumptions that are taken for granted today. Now that this issue is gaining significantly more media attention, I welcome any other policymaker or commentator to jump on the bandwagon with us. There is still plenty of room, to be sure. But I do urge caution to the latecomers. This is a very complicated

and multi-dimensional issue, and it does not lend itself to easy undertaking or quick fixes.

I hope that everyone will do their homework as the SEC and this committee have, and continue to do so, instead of turning to simple sound bites. Another top priority of mine that I look forward to discussing in more detail with the Chair is the recent push by some of FSOC and other international regulators to expand the government's safety net and potential regulation approach to those in the asset management business. This is of grave concern, and I hope that this committee and all of its members will work together to send a strong message to FSOC to not go any further down this road.

Now, FSOC has become an unaccountable and nontransparent black hole where potential regulators in the Executive Branch are trying to impose their will on supposed independent regulators. This committee must remain diligent in its oversight, and persistent in its commitment to rein in the FSOC.

And finally, I want to publicly thank Chair White for posting the OFR's study on asset management on their Web site and allowing the more knowledgeable people around the country to correct many of their inaccuracies and their falsehoods as well.

So I thank you for that, and I yield back.

Chairman HENSARLING. The Chair now recognizes the gentlelady from New York, the ranking member of our Capital Markets and Government Sponsored Enterprises Subcommittee, Mrs. Maloney, for 2 minutes.

Mrs. MALONEY. Thank you, Mr. Chairman.

And I would like to particularly welcome Chair White, who is from the great City of New York, and I believe I speak for all New Yorkers when I say that we are so proud of you and your distinguished career.

The SEC has an enormously important role in our economy because it is responsible for overseeing and regulating our Nation's capital markets. The SEC must simultaneously encourage capital formation by businesses that are seeking to grow; ensure that investors in these companies are adequately protected; and maintain fair, orderly, and efficient markets. Balancing all of these objectives is a difficult job, but I believe the SEC has performed admirably under Chair White.

Importantly, just as the markets are constantly evolving and innovating, sometimes in response to new regulations, so must the SEC. In this respect, I am pleased that all five SEC Commissioners have publicly committed to a thorough review of market structure issues. I am also encouraged by the SEC's commitment to a data-driven approach on these complex market structure issues which is evidenced by their new market information data analysis known as MIDAS. This will allow the SEC to analyze trading data to determine where the problems are and what needs to be fixed.

I would also like to note that trading volume in the equity markets has more than doubled to $71 trillion since 2001, and I would welcome any comments on how the SEC's budget for overseeing the equity markets, whether or not it has kept pace with this enormous, enormous increase in responsibility. I would also welcome

any discussion on how the lack of resources has impacted the Commission's oversight in this area and other areas.

You have an incredibly important job to do. I look forward to your comments on these issues and others. Welcome.

Chairman HENSARLING. The Chair now recognizes the gentleman from Virginia, the vice chairman of our Capital Markets and GSEs Subcommittee, Mr. Hurt, for 2 minutes.

Mr. HURT. Thank you, Mr. Chairman.

Mr. Chairman, thank you for holding today's committee hearing on the SEC's agenda and Fiscal Year 2015 budget request.

I firmly believe that one of the foremost responsibilities of this committee is to provide the appropriate oversight and scrutiny of the Federal agency budgets under our jurisdiction, especially at a time when our national debt surpasses $17 trillion. Federal agencies must learn to work smarter and do more with less. I am, however, encouraged by Chair White's recent comments regarding several of the SEC's upcoming priorities, including the need to engage in comprehensive reviews of equity market structure and disclosure requirements.

As she noted, the problem of disclosure overload is having a negative impact on investors, public companies, and the SEC itself. Streamlining our disclosure regime will lead to benefits for both businesses seeking capital in the public markets and investors seeking information to make informed decisions. In addition to these reviews, it is imperative that the SEC remember to advance its third and equally critical mission, which is facilitating capital formation.

Congress has provided the SEC with broad discretion to amend and to improve securities laws and regulations without sacrificing key investor protections, and the SEC must take the lead in promoting capital formation that will spur growth and opportunity for our Nation and for the people I represent in Virginia's 5th District.

I would like to thank our distinguished witness, Chair White, for appearing before this committee today, and I look forward to your testimony.

Thank you, Mr. Chairman, and I yield back the balance of my time.

Chairman HENSARLING. The Chair now recognizes the gentleman from Georgia, Mr. Scott, for 1 minute.

Mr. SCOTT. Thank you, Mr. Chairman.

And welcome, Ms. White. I am over here. It is good to have you here.

I hope that in your discussion, you will talk about market structure timeline. That is extraordinarily important because a lack of order competition under the current structure is a major concern of mine. I hope that we will deal with that and also examine what you feel are some of the present conditions that could lead to an excessive amount that would have and tends to have a rather negative impact on excessive competition. So it is sort of a delicate balancing act we have to reach. I look for your comments on that.

And also, I am very interested in knowing how you and the CFTC are making progress on the harmonization, particularly in cross border, as you implement Title VII of Dodd-Frank.

And then, there is the fiduciary rule that you and the Labor Department seem to be having some trouble with. I would certainly appreciate your comments on that.

Thank you, Mr. Chairman.

Chairman HENSARLING. The Chair now recognizes the gentleman from Texas, the ranking member of our Oversight and Investigations Subcommittee, Mr. Green, for 2 minutes.

Mr. GREEN. Thank you, Mr. Chairman.

Mr. Chairman, the SEC, in my opinion, is not a burden to taxpayers; it is a benefit to taxpayers. And if we look at a true cost-benefit analysis, we can see that in recent years the SEC has taken almost twice as much in when you juxtapose that to its budget as it is budgeted, and these monies come in, in terms of fees, so the SEC is of great benefit to taxpayers. It oversees more than 25,000 market participants, including over 11,000 investment advisors, approximately 10,000 mutual fund and exchange traded funds, approximately 4,500 broker-dealers, approximately 450 transfer agents, and approximately 18 securities and exchanges.

The SEC has responsibility for reviewing the disclosure and financial statements of approximately 9,000 reporting companies. It has new expanded responsibilities over derivatives, an additional 2,500 reporting advisors to hedge funds and other private funds. It has expanded responsibilities over nearly 1,000 mutual advisors, 10 registered credit card rating agencies, and 7 registered clearing agencies. The SEC plays a critical role in overseeing our capital markets and protecting our investors from fraud. I do not see it as a burden. I see it as one of the benefits that we have, and I think that what happened with Bernie Madoff is clear evidence that a better funded can make a greater difference. I am supportive of what is being done, and I support totally what the chairman is doing as well.

I yield back.

Chairman HENSARLING. The Chair now recognizes the gentlelady from Ohio, Mrs. Beatty, for 1 minute.

Mrs. BEATTY. Thank you, Mr. Chairman, and Ranking Member Waters, and thank you, Chair White, for your testimony today.

It has been nearly 6 years since the foreclosure crisis sparked a financial crisis that rocked our Nation. In the aftermath of the Great Recession, Congress passed comprehensive legislation to reform all aspects of the financial services industry. The Dodd-Frank Act, an important law, although not perfect, was designed to address the catastrophic failures that led to the Black Swan events of 2008.

Adding in the JOBS Act, the SEC has been assigned more than 100 new mandatory and discretionary rulemakings in the past 4 years. All of these new regulatory and oversight responsibilities are critical to minimizing the risk of future financial market shock but cannot be properly exercised without appropriate funding for the SEC.

I believe an adequate appropriation, even if increased, would not impact our Federal deficit in any way. I look forward to discussing with you some of the important new activities the Commission is undertaking as a result of the Dodd-Frank Act.

Thank you, and I yield back.

Chairman HENSARLING. That concludes our opening statements. We will now turn to our witness. Today, we welcome the testimony of the Honorable Mary Jo White, Chair of the U.S. Securities and Exchange Commission. This is Chair White's third appearance before our committee, so I believe she needs no further introduction. Without objection, Chair White, your written statement will be made a part of the record. Chair White, again, welcome, and you are now recognized for your remarks.

STATEMENT OF THE HONORABLE MARY JO WHITE, CHAIR, U.S. SECURITIES AND EXCHANGE COMMISSION

Ms. WHITE. Thank you, Chairman Hensarling, Ranking Member Waters, and members of the committee for inviting me to testify regarding the SEC's agenda, operations, and our fiscal 2015 budget request.

The agency's mission is critical to investors, the markets, and capital formation as well as our economy more broadly. Now, more than ever, we will need a strong, vigilant, and adequately resourced SEC. To put the SEC's extensive responsibilities and budget request into context, from fiscal 2001 to fiscal 2014, trading volume in the equity markets, as has been noted, more than doubled to a projected $71 trillion. The complexities of financial products and the speed with which they are traded increased exponentially. Assets under management of the mutual funds grew by 131 percent to $14.8 trillion, and assets under management of investment advisors jumped almost 200 percent to $55 trillion.

Today there are, as has been noted, over 25,000 registrants overseen by the SEC, including broker-dealers, clearing agents, transfer agents, credit rating agencies, exchanges, and others. During this time of unprecedented growth and change, the SEC also has been given significant new responsibilities for over-the-counter derivatives, private fund advisors, municipal advisors, crowdfunding portals, and more.

The President's $1.7 billion budget request would enable the SEC to address our critical priorities. As you know, the SEC's funding is deficit-neutral, which means the amount Congress appropriates does not impact the deficit, the funding available for other agencies, or count against caps in the congressional budget framework. Nonetheless, I fully recognize Congress' oversight responsibilities and my duty to be an effective and prudent steward of the funds we are appropriated.

I believe our accomplishments this past year and the improvements the agency has made should give Congress and the public the confidence that we will fulfill this responsibility. Since my arrival in April 2013, the Commission has adopted or proposed more than 20 significant rulemakings across the regulatory spectrum, including many mandated by the Dodd-Frank and JOBS Acts. We are more aggressively enforcing the securities laws, requiring for the first time admissions to hold wrongdoers more publicly accountable and obtaining orders for penalties and disgorgement of $3.4 billion in fiscal 2013 alone, the highest in the agency's history.

We have intensified our data-driven disciplined approach to analyzing and appropriately addressing complex market structure issues, including those relating to high-frequency trading and dark

pools. We are now focused on completing the money market reform rulemaking we proposed last year to address redemption risk and resiliency concerns related to this important investment product. The Commission is also working to complete the rulemakings under the Dodd-Frank Act which were required in response to the financial crisis, and those under the JOBS Act which were designed to facilitate capital formation for smaller businesses.

The staff has begun a comprehensive review of our public company disclosure rules in an effort to make them more effective for investors. Importantly, our budget request would permit the SEC to increase its examination coverage of investment advisors that everyday investors are increasingly turning to for investment assistance for retirement and family needs. While the SEC has made the most of its limited resources, we nevertheless were only able to examine 9 percent of registered investment advisors in fiscal 2013.

In 2004, the SEC had 19 examiners per trillion dollars in investment advisor assets under management. Today, we have only eight. More coverage is clearly needed, as the industry itself has acknowledged. This budget request would also allow us to continue to strengthen our Division of Economic and Risk Analysis, our fastest growing division, by adding financial economists and other experts to assist with economic analysis and rulemaking, risk-based selection for investigations and examinations, and structure data initiatives. The agency has made great strides to enhance our technology, including developing tools that permit us to better understand and protect our markets and building the technological foundation for unified access to SEC information applications and data across the agency.

We are at a critical point in the deployment of more sophisticated technology tools and platforms to assist in these efforts, and it is vital that we have the resources necessary to continue modernizing our IT systems and infrastructure. I am pleased with the agency's accomplishments, but much more remains to be done. I firmly believe that the funding we seek is justified by our progress and by our important and growing responsibilities to investors, companies, and the markets.

Your continued support will allow us to build on the significant progress the agency has achieved, which I am committed to continuing and enhancing.

I am happy to answer your questions. Thank you.

[The prepared statement of Chair White can be found on page 56 of the appendix.]

Chairman HENSARLING. Thank you, Madam Chair.

The Chair now recognizes himself for 5 minutes for questions.

I want to follow up on some comments made by the chairman of our Capital Markets Subcommittee. Many have called the asset management industry part of the shadow banking group, which is obviously a pejorative term. As Chair of the SEC, are asset managers regulated, from your vantage point?

Ms. WHITE. Yes, they are, and they have been for many years.

Chairman HENSARLING. So, they are regulated?

Ms. WHITE. They are regulated.

Chairman HENSARLING. In your opinion, does your Commission lack any authority that it needs to adequately regulate the asset management industry?

Ms. WHITE. Obviously, we are always looking to see whether that is the case, but I do not believe we lack that authority, Mr. Chairman. In other words, we have the authority we need.

Chairman HENSARLING. Okay. Madam Chair, one thing that you and I may have in common is that some people might accuse us of being vertically challenged. Notwithstanding that, you managed to poke your head way up to put out for comment the OFR asset management study when others would not. I want to thank you, along again with our chairman of our Capital Markets Subcommittee, for doing that.

We know that FSOC has moved already on several non-bank SIFI designations on what I might call part of the shadow regulatory process, as FSOC continues to be a rather opaque organization, if you will, using a rather amorphous process. Be that as it may, from your perspective, how do asset managers differ from traditional—how are they different from traditional banks and bank holding companies?

Ms. WHITE. They are different in many ways. I think that the most fundamental difference is that they are an agent, and they, therefore, manage others' monies. You have to make certain to distinguish that when you are looking at any systemic risk issues. We are not talking about positions on the balance sheet, but we are talking about acting as agents in the spaces that they act in.

Chairman HENSARLING. We know that designating a firm as an SIFI imposes increased cost upon an entity or an organization, in this case, potentially this could be imposed upon investors in mutual funds, people who are saving for retirement, maybe a downpayment on a home, maybe to send their kids to college. Do you believe that the evaluation of asset managers for an SIFI designation should take into account the economic cost that ultimately could be borne by our Nation's hardworking investors?

Ms. WHITE. Without getting into discussions I can't because they are confidential when we deal with FSOC with any potential designation—

Chairman HENSARLING. Which may be part of the problem, but continue.

Ms. WHITE. FSOC is focused on the issue of transparency and enhancing transparency, I think, but it is also important to recognize that the discussions of potentially systemically important institutions contain a lot of confidential data as do some of the other discussions, which you would not want to be—and I don't believe anyone would want to be—made public.

I think that the primary focus and really the primary congressional mandate given to FSOC is to focus on identifying and addressing systemic risk to the broader financial system, and while any consideration of any decision an organization makes should take into account all facts and circumstances and impacts, we can't lose sight of the main mission.

Chairman HENSARLING. What do you see as the systemic threat specifically posed by the mutual fund industry?

Ms. WHITE. The answer—that has obviously been studied and is continuing to be studied by FSOC, of which I am a member. Clearly, the SEC also is the primary regulator of the mutual fund industry and asset managers, and I think our regulations do address, and frankly, increasingly, any potential systemic risk that that industry or any particular member of it might pose.

Chairman HENSARLING. What are the Dodd-Frank Act, non-bank SIFIs which potentially could be assessed to help pay for the resolution of a failing financial institution, which I believe could have the consequence, if you designate a mutual fund as an SIFI, it means that individual fund investors, many of whom have entrusted their retirement savings to a mutual fund, they could be on the hook for bailing out large financial institutions, is that your understanding, and do you think this is an appropriate consequence for moderate income mutual fund investors?

Ms. WHITE. I think it remains to be seen just how the designations play out, and indeed how even enhanced regulation is exercised if there is to be a designation. But plainly, the concerns that you note are real ones.

Chairman HENSARLING. The Chair now recognizes the ranking member for 5 minutes.

Ms. WATERS. Thank you very much, Mr. Chairman.

Chair White, you recently stated in a speech to the Consumer Federation of America that protecting investors underlies everything the SEC does, and I know that you and your colleagues are currently giving thoughtful consideration to a significant investor protection issue, namely the extension of a uniform fiduciary rule, to broker-dealers under Section 913 of Dodd-Frank. The rulemaking enjoys broad support from investor advocates, advisor groups, and even the major broker-dealer trade association.

As I understand it, the SEC's Investor Advisory Committee submitted a unanimous recommendation to you that the Commission move forward with such a rulemaking. Can you provide me with a timeline of when you expect to be able to respond to the committee's recommendation?

Ms. WHITE. I can give you an approximate timeline. First let me say that, speaking for myself, I think this is an extraordinarily high priority for the Commission to decide, and under Dodd-Frank, we are given the authority to decide and then authority following that, depending upon our decision, whether to impose a uniform fiduciary duty standard on broker-dealers and investment advisors. What I have done is to prioritize that issue with the staff because of how important I think it is, and they have come back to me and I have gone back to them on the range of options and considerations. It is a priority of mine to have the Commission reach this very important issue this year.

Ms. WATERS. Thank you very much. On a similar point, I have a bill, H.R. 1627, the Investment Adviser Examination Improvement Act, which would authorize the SEC to levy user fees to cover the cost of an increase in the frequency of examinations of investment advisors. The Investor Advisory Committee of the Commission has endorsed this legislation, which was one of the recommendations that the SEC staffer originally provided in the study that was required in Section 914 of Dodd-Frank.

From your perspective as Chair, do user fees represent a scaleable and workable way for the Commission to improve investor protection?

Ms. WHITE. There is no question in my mind that one of the most significant resource investor protection issues we face is our examination function of investor advisors. Increasingly, retail investors in particular are making use of investment advisors. As I think I alluded to in my oral testimony—it is certainly in my written testimony—given the resources we have now, we are only able to cover 9 percent of those investment advisors last year, and that is using very smart risk-based methods to identify where we should be going based on risk.

And this budget request prioritizes our receiving resources, I think 240 additional positions, which is as many we believe we could hire smartly and train very well, to deploy exactly in that space.

So, with respect to the user fee proposals and other proposals that have been made in Congress, my priority is to have the funding to be able to carry out my job, which I do not have now.

Ms. WATERS. Thank you very much. Section 911 of the Dodd-Frank Act provides that each time the Investor Advisory Committee submits a finding or recommendation to the Commission, the SEC shall promptly issue a public statement assessing the finding or recommendation of the committee and disclosing what action, if any, the SEC intends to take with respect to the recommendation. Does the Commission plan on responding to this recommendation from the Investor Advisory Committee?

Ms. WHITE. We have had a number of discussions with the Investor Advisory Committee about how best to respond, and essentially what Dodd-Frank calls for is a Commission response. We try to give as much information as we can even if the Commission hasn't reached a decision on an issue.

So, as I mentioned before, it is a priority of mine to have the Commission reach a decision on what to do in this space. At times, the response, or the full response at least to the Investor Advisory Committee is based on what we go forward with or we don't go forward with, but I do try in other ways to inform the Investor Advisory Committee of the progress, the staff briefings that are occurring and that kind of thing on the way to a decision.

Ms. WATERS. Thank you very much. I think it is extremely important, and I am very pleased that you have reiterated that this is a high priority and your staff is very much involved with this recommendation, and I am pushing very hard for H.R. 1627, so thank you very much.

Chairman HENSARLING. The Chair now recognizes the gentleman from New Jersey, Mr. Garrett, the chairman of our Capital Markets and GSEs Subcommittee, for 5 minutes.

Mr. GARRETT. And again, thank you, Mr. Chairman.

So, Chair White, you have heard all the stories in the paper and in the news. Can you tell us, are the markets rigged?

Ms. WHITE. The markets are not rigged. The U.S. markets are the strongest and most reliable in the world. That is not to say they are perfect, and obviously one of our continuing high priorities is to increase market quality.

Mr. GARRETT. So, just following along that line, I don't know if you have read it or not, but if you have seen stories on it, was there any factual or substantive information in those reports and in Michael Lewis' book that was new to you or new to the SEC? Or has your agency basically known that information, I will say, for years?

Ms. WHITE. I am not in a position to give a book review on it, but clearly the issues with respect to the greater speed in our markets, including those obviously employed by high-frequency traders are issues that have been discussed for years, examined for years. We are obviously dealing with a marketplace that has changed dramatically over the last decade and the last 5 or 6 years, continuously evolves, and then one thing I think is important to keep in mind is when you say "high-frequency traders," which is where most of the discussion has occurred lately, that is not a single phenomenon as our new MIDAS Web site that has been alluded to makes very clear. There are very different kinds of strategies and approaches that are used by high-frequency traders, but these are issues that our experts in Trading and Markets and the Commission more broadly have been focused on really continuously as the market has developed.

Mr. GARRETT. Okay. And so part of that, I will say the allegation that deals with the issue of what you call inside information, so if there is a market impact because of a publicly executed trade, which is what trades are, is it using inside information to adjust your trade or your bid and offer across the market because of that executed trade?

Ms. WHITE. If we are talking about the legal concept of that—

Mr. GARRETT. Yes.

Ms. WHITE. At least as I understand your question.

Mr. GARRETT. Yes.

Ms. WHITE. It is not, as I understand the question—

Mr. GARRETT. Yes.

Ms. WHITE. And as it has been described, it is not unlawful insider trading. I think there has been some confusion, too, between do you have earlier access to order information, that is to say what the order is, versus, can you more quickly react to executing based on that public information. I think then there has been confusion about that.

Mr. GARRETT. Yes, and that sort of segues somewhat into my last question. Does the use of what you call exchange data feed, right, which is approved by the SEC to make changes to your bids, does that constitute insider trading?

Ms. WHITE. If properly used, no.

Mr. GARRETT. Right. Changing topics here to what the chairman was talking about with regard to FSOC and asset management and SIFI designation, if you look at a series of recent actions taken by FSOC, and I am going to run down them, and the bank of regulators, there seems to be a pattern here.

First, you have FSOC intervene on money market fund reform; next you have the OFR release, which I talked about before, and a much maligned asset management report; then you have banking regulators put forth a liquidity coverage ratio (LCR) proposal that basically ignores the SEC's existing liquidity regime; and next, you

have FSOC announce it is hosting an upcoming conference on systemic risk posed by, of all things, asset managers; and finally, last week there were reports that two asset managers advanced to FSOC's second stage of SIFI review.

In all of these cases, you have banking-regulator-dominated entities proposing what I will call potential-like regulation and potentially extending their taxpayer safety net, which means all of us potentially can be on the hook and then therefore the subsidies on what? On security products and the firms, and so, as you can tell, I am concerned about this. So, as the head of the agency with expertise in this area and with authority in this area, are you concerned about it as well?

Ms. WHITE. I am very concerned. I think you distinguish, too, between FSOC's duties, authorities, most of which I think encompass the data points you just mentioned. And then separately, to some extent, the Fed's powers by virtue of the Bank Holding Company Act that touch on these issues, for example, the liquidity ratio regime. It is extraordinarily important for FSOC, which is charged under the statute, for identifying systemic risk and addressing them within their authorities, that they obviously carry that out.

Mr. GARRETT. But why would we want to extend the taxpayer subsidy and bailout safety net to capital markets and asset management?

Ms. WHITE. I am not suggesting for a moment that we should—

Mr. GARRETT. Okay.

Ms. WHITE. —do that. But what I do think is very important is for FSOC, as it carries out the duties given to it, that it has the expertise, listens to the expertise at the table, as well as drawing on external sources of expertise, particularly when FSOC gets beyond banking regulated space.

Mr. GARRETT. Yes, I saw that gavel coming, so thank you.

Chairman HENSARLING. The gavel did come. The time of the gentleman has expired.

The Chair now recognizes the gentlelady from New York, the ranking member of our Capital Markets and GSEs Subcommittee, Mrs. Maloney, for 5 minutes.

Mrs. MALONEY. Thank you very much.

Madam Chair, there has been a great deal of discussion about market structure issues recently and the fairness of the current market structure, in particular. One issue that stands out to me as a problem is that not everyone has equal access to market data at the same time, giving some an unfair advantage.

Some market participants can buy access to private data feeds that are significantly faster than the data feeds that are available to the public, and even some of the big institutional investors have said that this "tying gap" creates an unlevel playing field, and have called for action to address it. Do you agree that these private data feeds create an unlevel playing field?

Ms. WHITE. I think the issue that you mentioned, and that has been discussed recently and obviously historically as well, is certainly one that we are looking at. I think it is important to point out that under the current regulatory regime, the SROs are required to provide to the proprietary feeds and the consolidated data feed the information at the same time. That doesn't answer the

question how fast, therefore, can it be used and absorbed, obviously, and so some of the questions that have been raised about potential unlevelness of the existing playing field go to that area.

But I think it is important to focus on the complexities in this, area, and one of the things we want to be sure that we maintain is that we are very data-driven and disciplined in deciding what to do with respect to any aspect of our current market structure which is, as a whole, I think, working quite well. That doesn't mean it is perfect by any means, but it is certainly one of the issues that we are looking very closely at.

Mrs. MALONEY. It really throws up a red flag when BlackRock and Goldman Sachs and some of these other large institutional investors are calling for some type of regulation to address the timing gap between the unlevel playing field that, in their materials, they talk about between the private data feed and the public getting access to it.

So, would eliminating this timing gap between private and public data feeds lead to fair markets? I think it would. Don't you think eliminating that timing gap between private and public feeds and data would eliminate an advantage there to some?

Ms. WHITE. It is clearly, as I said before, an issue we are quite focused on. Let me be clear, I think you have had a number of different issues raised, and frankly, different people have different views on them in the public arena, too, in terms of what would increase market quality and both the fact and appearance of fairness in a level playing field, and they are both extraordinarily important.

I think the issue you raise and others is extraordinarily important in and of itself, as well as any perception of unfairness, so that is certainly a priority issue for us.

Mrs. MALONEY. Has the SEC taken any actions to try to stop abusive practices or create a more level playing field?

Ms. WHITE. No question about that. I think one thing to be very clear about—

Mrs. MALONEY. But have you taken any actions? Have you done anything about it?

Ms. WHITE. I think we have done—

Mrs. MALONEY. Have you disciplined anybody? Have you done anything? Have you made any changes?

Ms. WHITE. I think we have done a number of things. Clearly, to the extent that there are unlawful inappropriate practices engaged in by whether it is high-frequency traders, dark pools, or any other market participant, our enforcement and our examination functions, in particular, have responded to those. I have said publicly—

Mrs. MALONEY. Can you give examples?

Ms. WHITE. I have said publicly before that we have a number of ongoing investigations as to practices by high-frequency trading firms and dark pools. One example of enforcement action that we brought at the end of 2012 was actually I believe the first action where there was a penalty assessed. There was a $5 million penalty against the New York Stock Exchange based on precisely the issue of providing that market data first to the proprietary customers rather than the public consolidated feed. There is no ques-

tion about the seriousness and significance of that issue. We brought a number of others similar to that as well.

Mrs. MALONEY. I would say that any practices which seek to manipulate the market or disadvantage investors is going to have a devastating effect on the markets. I know people now who don't want to trade in the markets because of the high-frequency trading, and they don't feel they are treated fairly, that there is an advantage to the insiders, and I feel this is extremely important.

My time has expired. Thank you for your service.

Ms. WHITE. And I agree with that. I think the appearance issue is also important, as well as the fact.

Chairman HENSARLING. The time of the gentlelady has expired.

The Chair now recognizes the gentleman from Alabama, our chairman emeritus, Mr. Bachus, for 5 minutes.

Mr. BACHUS. Thank you.

I would assure Mrs. Maloney that there is very good staff at the SEC on market structure and they have been looking at this issue for some time, and it is rather complicated, but it is not something that they are not aware of and have not been addressing.

Chair White, you gave up a job where you were compensated 10 times more than you are now being compensated as a public servant, and I want to compliment you. I think you have shown your independence, you have stayed above politics. At times you have displeased both sides, but I think you have shown a balance, and it is in the best interest that we have an independent strong agency, and I think you have done a good job.

You have toughened enforcement. You should be given credit for that. And you have addressed a backlog of regulatory issues, so I compliment you on that.

One of the regulatory issues is the JOBS Act, and a bipartisan achievement of this committee during my tenure as chairman was the JOBS Act, and I think that this committee and its members can take a lot of credit for Steve Case, American Online cofounder, who published in the Washington Post earlier this month an article entitled, "Hey, Washington, the JOBS Act you passed is working," and the SEC deserves credit for helping to translate many of the provisions of that Act into workable regulations.

As you go forward, it is my hope that you won't become too prescriptive, so prescriptive that it discourages innovation that we are trying to inspire, and let me quote Steve Case: "Protections against fraud are important and safeguards should be put in place, but overprotection led to a stifling environment that slowed growth and limited opportunity. The JOBS Act reflects a more classical American acceptance of risk and its rewards."

Can you tell us how the SEC will approach the implementation of the remaining provisions of the JOBS Act to make sure it achieves its full potential?

Ms. WHITE. Yes, sir. And again, completing those JOBS Act rulemakings as well as the mandated Dodd-Frank ones remains a very high priority for me in this year's agenda. I think the provisions do vary as they were given to us by Congress. Some have built-in investor protections, I think, in terms of the crowdfunding intermediaries portals mechanism, for example. Others may not,

for example, the lifting of the ban on general solicitation we talked about earlier.

So our perspective on this is to plainly carry out the statutory mandates that we have been given in the optimal way we can, and by that I mean we want the rule to be workable. Obviously, we always have in mind investor protections.

It is a balance that I think should not be inconsistent but nevertheless is one that we have to engage in. We clearly engage in economic analysis of the choices that we make. Some of the choices may be made for us in the statute, and obviously we need to be faithful to those, but we certainly want these rules to work. That is the point. In order to encourage that capital formation and JOBS, that is the intention of it.

Always having in mind investor protection, one of the things I have done with the—not just the JOBS Act rulemakings, but frankly, we will do it even more broadly, is when the new marketplace opens, and I don't believe it will have any stifling effect, that we are really ready to kind of look at it in real time, is it working, is it not working, is there an uptick in fraud as some are concerned about? If so, we should be all over it, and I think that is investor protection, and I think it is also wise in terms of facilitating capital formation.

Mr. BACHUS. Thank you.

I know that Ranking Member Waters mentioned this, but I have long had an interest in making sure that there is proper oversight of our registered investment advisors, and you have expressed a concern about that in your opening statement, and of course, for any of us who went through the Bernie Madoff case, that really came home to us. A lot of people were hurt.

Last Congress, some of us worked on an SRO proposal, and that was just one approach, and I know Ms. Waters has reintroduced H.R. 1627, which is a user fee, and the investment advisor community seems to have embraced that.

I would just urge you to continue to—I know your examinations—you are not examining but 9 percent of them, and I urge you to continue to keep this as a priority and that all of us will work together to resolve this so we get a more frequent schedule of examinations.

Ms. WHITE. Thank you very much, and I will.

Mr. BACHUS. Thank you.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentlelady from New York, Ms. Velazquez.

Ms. VELAZQUEZ. Thank you, Mr. Chairman.

Chair White, the Volcker Rule provided the financial industry with many exemptions, including on certain collateralized loan obligations (CLOs). However, some in the industry are asking for broader relief arguing that the current rule will restrict access to capital. Can you explain what risks non-exempt CLOs pose and how the rule has affected the CLO market so far?

Ms. WHITE. I think that is something we will continue to look at. The rule itself became—the Volcker Rule itself became effective, I think, on April 1st, but a lot of the effectiveness of it in terms of conformance period doesn't kick in for some time. On the CLO

issue, I did concur and approve of what the Fed recently did, which was to extend the conformance period for CLOs that may hold securities, and that is kind of the key. If a CLO doesn't hold securities, then there is an exemption, but if not, the agency has determined that there was not, but what the Fed has done is to extend that conformance period to give a greater period of time to adjust to the rule requirements.

Ms. VELAZQUEZ. So far, $32 billion in CLOs have been issued this year, so it looks like it hasn't slowed down.

Ms. WHITE. Yes, and what we are talking about now, the legacy CLOs, yes, and some of the CLO market is an active one, the current CLO market.

Ms. VELAZQUEZ. Chair White, investing can be very risky, we all know that. Easing SEC reporting and registration requirements for crowdfunded security, as required under the JOBS Act, will therefore expose tens of thousands of investors to increased risk. How does the SEC plan to inform ordinary investors of the risks while not burdening small businesses and restricting capital access?

Ms. WHITE. On crowdfunding, we have made that proposal. I think the comment period closed, if I am remembering it right, in February. We have gotten a lot of comments. Some of the investor protection provisions, as I mentioned a little bit earlier, are built into the statute. Extraordinarily important to that is the intermediary structure of the funding portal or the broker where there are, either by statute or to some extent by our proposal, requirements to inform investors of the risks and make sure they are educated on exactly what the investments are about, not releasing the funds until the targeted amount is achieved.

But we have gotten a lot of comments, frankly, from both sides, which is not unusual in terms of do we have enough investor protections built in, some thinking we have too many built in and therefore will stifle this means of raising capital that is prescribed by the statute, so we are very carefully considering those comments before we move to adoption.

Ms. VELAZQUEZ. Thank you.

Chair White, the SEC cost estimates for crowdfunding do not look promising for smaller issuers. Has the SEC investigated ways to reduce these costs without impacting investor protection?

Ms. WHITE. Certainly, an integral part of all of our rulemakings is intended to weigh impacts and weigh costs and cost-benefits. Again, within the framework we are given by a particular statute.

The other method that I have tried to adopt on our rulemakings is to try as they come out the door frankly, to monitor the new marketplace in this instance that is created, so that we can see if it is working. If it is not, we would be in a position to make adjustments so that it would work without compromising investor protection.

Ms. VELAZQUEZ. So, do you anticipate a way for new businesses jumping into the market once the JOBS Act is fully implemented?

Ms. WHITE. On the crowdfunding provision, certainly there remains a lot of excitement about doing just that. You can't really tell until it is actually activated, but certainly there is a lot of excitement about that.

Ms. VELAZQUEZ. Thank you.

Thank you, Mr. Chairman.

Chairman HENSARLING. The Chair now recognizes the gentlelady from West Virginia, the chairwoman of our Financial Institutions Subcommittee, Mrs. Capito, for 5 minutes.

Mrs. CAPITO. Thank you, Mr. Chairman, and thank you, Chair White, for being with us today.

I know you are very familiar with the reporting guides that the SEC requires for specific industries, and you actually made a speech, I think last year, talking about the importance of disclosure, which we certainly agree with and the need to keep these disclosure standards up to date. You mentioned also in that speech that the mining industry's guidelines have not been updated since 1982, and I was wondering if you have any plans to update those? They are quite short in the reporting document, and I was wondering what the holdup was and what your plans are for that?

Ms. WHITE. The industry guides in general are part of what we are doing as part of the comprehensive review of our disclosure program, and there are a number of them that I think fairly could be said to be outdated, and we are certainly looking very closely at those. I can't be more specific now, but I'm happy to report back when I have a better sense of what the status is, but clearly that is included in what we are reviewing.

Mrs. CAPITO. Do you have any kind of timeline on that?

Ms. WHITE. It is, what we engaged in, and what I have instructed the staff to engage in is a comprehensive review, which I think is really quite important to our disclosure regimes which that is a part of.

Mrs. CAPITO. Right.

Ms. WHITE. What that doesn't necessarily mean, however, is that as part of that review we will not do certain discrete things. We won't wait to do certain discrete things, but I don't really have a timeline on it for you as I sit here today.

Mrs. CAPITO. I understand it is a problem in terms of international standards that we are sort of getting left behind there.

Another question I have is on the pension fund issue, with MAP-21, and I am going to have to refer to my notes here because it is kind of in the weeds. It has a provision that allows companies to use average discount rates when calculating their pension differences. This is especially important in the current low interest rate environment. What steps do you see the SEC taking to work with FASB to ensure that these companies, if they are using this average, are in compliance with their financial reporting?

I have written a letter to you and to others making sure that these companies know that they are accurate in their reporting and that it is reflective of whether it is overfunding or underfunding their pensions.

Ms. WHITE. What I can say to that at this point, and I may be able to say more later, and I know we do have I think a letter from you on this.

Mrs. CAPITO. Right.

Ms. WHITE. Is that FASB is studying this, and I expect to receive a briefing in fairly short order from our chief accountant's office who works with them on this.

Mrs. CAPITO. I think that provision probably will expire shortly, so I think that we—

Ms. WHITE. I'm aware of that.

Mrs. CAPITO. Yes, thank you.

I noticed—well, two quick questions. I have a bill out that says that before you can put a whole lot of rulemaking on, and Mr. Meeks and I are on this together, where you have to really look at what kind of duplicative efforts are already there, your old rules or regulations that are antiquated, instead of just piling on. You did mention cost-benefit analysis in your rulemaking; are you scrubbing this at the same time?

Ms. WHITE. Certainly with respect to any rulemaking we are focused on now, we certainly scrub what is out there, whether it is in our agency or other agencies to try to avoid that duplication. Frankly, there might not be a need, or there might be a different need based on that analysis.

Mrs. CAPITO. Right.

Ms. WHITE. In terms of actually reviewing our rules, what I think is the most constructive way to do that rather than on a sort of project basis, we certainly do reviews of what is called retrospective review under the Reg Flex Act and so forth, and that is important, but I also think that as they come out the door, we should be and I think are, but I am trying to enhance this, we are really reviewing the impact of those rules as we go forward and making changes that we think we should make. We have also—

Mrs. CAPITO. I think—

Ms. WHITE. I'm sorry—

Mrs. CAPITO. I was going to say, because I think we are finding in some spaces that there can be conflicts there, too. You have a new rule that comes up that really conflicts with not an entire previous rule that may be a certain part of that rule. I am certain you are looking at that. It certainly would lead to confusion and could lead to litigation and other things.

Ms. WHITE. Certainly, that should not be occurring. I am not suggesting it doesn't occur obviously. One of the things we have encouraged our various advisory committees frankly to do is also to bring to our attention any examples that may be occurring or even if not a conflict where something is outdated or not optimal, but we encourage all constituencies to do that. And we get a lot of feedback. It is not as if once our rule goes out we don't—

Mrs. CAPITO. I bet you do.

Ms. WHITE. —we don't hear back all right, so we do. We are trying to be more proactive in getting that feedback so.

Mrs. CAPITO. Thank you. And just in conclusion, I would like to thank you for your service, and I thank you for your very crisp and concise answers. Thank you very much.

Chairman HENSARLING. The Chair now recognizes the gentleman from Massachusetts, the ranking member of our Housing and Insurance Subcommittee, Mr. Capuano.

Mr. CAPUANO. Thank you, Mr. Chairman.

And thank you, Madam Chair, for being here.

Madam Chair, 6 years ago we had a humongous financial crisis, the greatest in my lifetime, and hopefully the last in my lifetime but we will see. Five years ago, we passed a significant law to try

to address some of the things that caused that crisis. Three years ago, the SEC passed some proposed regulations, adopted proposed regulations, relative to credit rating agencies that came out of that Dodd-Frank bill. Three years later, those rules are still not finalized.

A few years ago, the Supreme Court made a ruling that corporations are people, and they can spend money anywhere they want in political stating which is fine. Many of us asked the SEC to address that issue to simply require corporations who make political donations to simply publicize them, and the SEC has now taken a walk on that request after several years of being asked.

Recently you had one of your long-term attorneys, whom I understand is well-respected within the agency, retire. At his retirement party he basically criticized the SEC's approach over the last several years as being too timid relative to enforcement actions against some of the biggest names on Wall Street, therefore leading to an attitude on Wall Street of, "What is the big deal? We can get away with it. Maybe pay a small fine relative to the rewards we reap."

And now recently we have had a book comes out by a well-respected author, whether you agree with all the details or not, it certainly raises questions, serious questions, as to whether the whole market is rigged, especially against small investors. Even if there is nothing illegal being done, I think certainly most people would think that when they push the button to make a trade, that is going to happen and nobody is going to interfere with that in a matter of a split millisecond between the time they push the button and the trade is actually executed.

After all these things that the SEC really hasn't done much about, I will tell you that I understand full well that the SEC is understaffed, and I will tell you that I hope you recognize this, I have been one of the greatest supporters of fully staffing and adequately paying the employees of the SEC, and I think that you will find that most of that support is on this side of the aisle.

We agree with that comment, but nonetheless, that is the fact. To me, that raises lots of questions about focus and priorities of what is left. Fully understanding you are understaffed, what are you going to have a limited staff do? And in my opinion, the SEC's most important function is providing confidence for investors in the general public, that there is a level playing field, that they will be protected from shysters, and that the market will be an honest and free market.

In the last several months, lots of things have happened to raise that question, and I simply want to ask you, do you agree with the things I have commented about, not necessarily the details, but the seemingly constant erosion of confidence in the SEC to actually do the job, the main job it is required to do, not in the fact that you are doing in the details of this regulation or that, but the fact that whether we believe you are doing it enough?

If we don't believe it, you may as well not exist, and it doesn't matter what your funding level is. And I will tell you that from my end of the table, that is certainly what I am starting to see, one drip at a time, and I would just like to hear your reaction to that concern.

Ms. WHITE. Plainly, it is a significant concern if that is your perception or anyone else's or more broadly the market's perception, and so it is something that I think we have to be very cognizant of. I think when I was answering the questions before on our work on the market structure issues, that even if, in fact, some piece of that may not be a problem but it is perceived to be even as unfair or creating an unlevel playing field, that, in and of itself, is a significant issue.

I do think that the SEC and our experts in particular in trading and markets, are intensively and with great expertise and increasingly sophisticated use of data addressing those issues, but I recognize what is somewhat a separate issue of making certain that there is confidence in that work or any of those conclusions as well as we proceed.

I think there are virtual consensuses out there but you still have the questions being raised which makes it a problem, is that the current market structure, including the advances of technology, have actually benefitted in particular the retail investor. I am not saying they haven't benefitted the institutional investor in terms of decreased costs and narrowing of the spreads and greater liquidity, but if the retail investors don't think that is the case, that is a problem. There is no question about that. I might note, and I don't want to overstate it, but you have actually had certainly in recent months, the recent past, more retail investors coming back into the markets, which I think is a very good thing; but we have a constant duty to ensure people that we are really on all those jobs that you have mentioned. I am happy to follow-up on the specifics.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Texas, Mr. Neugebauer, the chairman of our Housing and Insurance Subcommittee.

Mr. NEUGEBAUER. That you, Mr. Chairman. Chair White, thank you for being here this morning.

As you know, the Financial Stability Oversight Council, FSOC, recently designated Prudential Financial as a non-bank SIFI that will be now subject to enhanced prudential standards. Unfortunately, this was over the strong objection of voting members who have insurance expertise, and one of those members, Director John Huff, a State Insurance Commissioner who actually regulates the businesses of insurance, stated, "FSOC's misguided overreliance on banking concepts is no more apparent than in the FSOC's basis for the designation of Prudential Financial." He went on to say that, "the basis for this designation was grounded in implausible and even absurd scenarios." What is your reaction to Mr. Huff's remarks?

Ms. WHITE. And this is on Prudential, I think I heard you say? That happens to be a case that I am actually recused on, so I don't want to talk about the specific case, but I think I can talk generically and be responsive which goes back to obviously there are 10 voting members of FSOC, so decisions when they are taken are taken by those votes, and it is extraordinarily important that before any decision is made, that FSOC have and listen to the expertise in the particular industry. I am not commenting on the specific decision at all, but I think that is critical.

Mr. NEUGEBAUER. I think, based on what you just said, then the people who were in the room when this decision was made, who actually had more expertise in insurance regulations, spoke in opposition to it. Should that be troubling to us that we are trying to let people who have not necessarily had experience in regulating insurance companies have such a large say in this issue?

Ms. WHITE. Again, obviously if FSOC was created as it was by statute, I do think FSOC, its primary purpose, which I think is an extraordinarily important and positive one, is to bring together the financial regulators from across market spaces, if I can call it that, so that you can sit in the same room I am seeing this, I am seeing that and react to it.

But I also think again, that you want your decision-making to be optimal. It doesn't mean just because one particular expert who may be a voting member says X, therefore X is the right answer necessarily, but it does mean you should listen to that expertise, and and I am not suggesting that FSOC doesn't do this because it certainly does to a degree, bring in external sources of expertise as well. But get that expertise at the table, particularly when you are in areas beyond the members' particular expertise.

Mr. NEUGEBAUER. I do understand that you recused yourself because of your previous ties to Prudential, but now that the decision has been made, do you agree with that decision?

Ms. WHITE. Because I am recused, I don't think I should comment on the specific decision, and it is one that I would not have therefore studied either in obviously the same way.

Mr. NEUGEBAUER. I want to commend you and your fellow Commissioners for committing to a data-driven, holistic review of our U.S. equity markets structure. Can you kind of give a little snapshot of how you see this review proceeding and some of the next steps and timelines?

Ms. WHITE. And it has been proceeding. It is something, by the way, that even before I became Chair, and at my confirmation hearing, I identified as one of my three immediate priorities, in addition to completing the mandated rulemakings and enhancing the enforcement function, making certain that the SEC and its experts had the data they needed to fully understand all of the market structure issues and then respond appropriately if there is a need to respond.

And so, I am very personally close to the work that is being done there, in really constant discussion with the senior folks in Trading and Markets, and we are proceeding in a data-driven disciplined way. I think the knowledge base of the Commission has been enhanced significantly by being able to bring on the MIDAS technology, when the CAT technology comes on board even more so, and again that will help us, all of us, make certain that we fully understand all of those issues.

But it is a very high priority. It is proceeding actively. I can't tell you specifically when you will see a particular product come out of that review, but I assure you that when it ought to come out, it will come out as we proceed with that review.

Mr. NEUGEBAUER. And you are committed to looking at the whole space, and nothing is off the table; is that correct?

Ms. WHITE. Without any question. And that includes our own regulations as well. All the issues of speed, disbursement, volatility, but including also, has NMS contributed in ways that were unintended, or over time they may have contributed in ways that are unintended? It is a comprehensive review where every issue is on the table.

Mr. NEUGEBAUER. Thank you.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Massachusetts, Mr. Lynch.

Mr. LYNCH. Thank you, Mr. Chairman, and thank you, Madam Chair, for your willingness to help the committee with its work.

I want to go back to the point raised by Mrs. Maloney and also Mr. Capuano earlier. I am concerned about high-frequency trading, and there are a number of elements that have been raised in Mr. Lewis's book and also by some other writers, for example, Charles Korsmo, who wrote a very thoughtful article that I would like to ask unanimous consent to enter into the record.

Chairman HENSARLING. Without objection, it is so ordered.

Mr. LYNCH. Thank you.

One of the red flags that I thought came out in Mr. Lewis's book was the fact that in many cases, these high-frequency traders are maintaining positions for just a matter of seconds, oftentimes less than a minute, and at the end of the day they are balancing out their trades. They don't maintain positions for very long, and there was one high-frequency trader, Virtual Financial, which publicly boasted that in 5½ years, they had one day of trading losses, and they attributed that to human error.

So, when you say the market's not rigged, I just have to say that there seems to be a definite advantage for a firm that can operate for 5½ years with only one day of trading losses. It is incredible in itself, but I just think we need to go deeper on this, and I think that there are some major questions that have been raised here by Mr. Lewis's book and others. The Order Protection Rule and regulation NMS which significantly fragments liquidity and provides some slow market arbitrage opportunities for high-frequency traders, and are you looking at that?

Ms. WHITE. The answer is, we could not be doing a more intensive review of all the issues, and I agree that there are a number of questions that have been raised and not just recently or by a book. These are real questions that we are looking into and will respond appropriately when we have completed that review. I do think—

Mr. LYNCH. I sure hope so, and this is not on you. This is not on you, Madam Chair, because you are relatively new, but the colocation and technological strategies that allow computerized traders to front run trades by virtue of proximity and speed, that has been out there for a while.

This firm has been doing this for 5½ years. So-called maker-taker policies at exchanges that distort market behavior by confusing trading activity with useful liquidity, discrepancies between how fast traders can trade and how quickly exchanges recognize those price changes across fragmented equity markets, and those are all concerns.

And the other question I have is, what is going on in dark pools? At least the suggestion from the evidence provided by Mr. Lewis, that investors who are going to dark pools are also being taken advantage of, and I know that you have some authority, the SEC has some authority under ATS to look at those dark pools to tell us whether or not those trades are being made at an optimum advantage for those investors or whether they are being taken advantage of much in the same way some of these other trades are being front run. Do you have any intent of looking at these dark pools?

Ms. WHITE. No question about that. We are looking at the dark pools. I think I also mentioned that we, and I can't say more than this because of the nature of it, but we have investigations involving practices in dark pools on the enforcement and examination side, and each issue that you mentioned raised significant questions. For example, maker-taker pricing. There are different views about whether they are benefitting market quality or they are deteriorating or diminishing market quality.

Mr. LYNCH. I appreciate that. I only have 8 seconds left. Have we prosecuted anybody for any of this, up to this point?

Ms. WHITE. We have certainly brought cases on the civil side. We don't prosecute in the criminal sense, but there have been some criminal actions as well. Certainly, front running is not allowed if appropriately described, and we have certainly brought front running cases, and we have brought cases involving really the spectrum of market participants.

Mr. LYNCH. Thank you.

Chairman HENSARLING. The time of the gentleman has expired. The Chair now recognizes the gentleman from California, Mr. Royce, the chairman of the House Foreign Affairs Committee, for 5 minutes

Mr. ROYCE. Thank you, Mr. Chairman.

And thank you, Chair White, very much. Thank you for your testimony here today.

You briefly described your view as the difference between asset managers versus banks and other financial institutions, and there was the OFR's report on the potential for SIFI designation, and as you explained this, it seems as though the SEC and the OFR were not necessarily on the same page in terms of the way you perceived it at the SEC.

And I was going to ask you, was there collaboration between the OFR and your staff in preparing this or not in terms of the final report because you are the primary regulator, and so at the end of the day there should be, when you are not in concurrence with the view, some way to express that, maybe it would be to have a dissenting opinion in terms of the OFR position, but I was just going to ask you about that.

Ms. WHITE. I'm sorry, I guess the first point would be that actually nothing has been presented for any kind of decision yet to this point, and my understanding, and this does precede my time as Chair, but in I think late-ish at least 2012, FSOC actually commissioned, asked OFR—

Mr. ROYCE. Right, originally.

Ms. WHITE. —which is its research arm, and obviously meant to well inform FSOC's deliberation to undertake this study in terms

of the SEC's staff's participation, it is an OFR study. The Commission itself did not participate but the SEC staff did provide throughout the process of the report its technical expertise and comments. At the end of the day, some of those comments were taken and some of those were not taken, and essentially the staffs agreed to disagree. But in the end, it really is OFR's study. And in response to an earlier question, OFR actually publicized its own study, and I think everyone expected public reaction. What the SEC did was to open a page so that those comments could be collected there because I think anything is improved by getting input.

Mr. ROYCE. Right. I recall you opening the page. But I just wondered on the asset management report if there might be a way to actually attach the views of the SEC, of the primary regulator, in a situation like this? It was just one idea.

Ms. WHITE. I appreciate the idea. I think it is their study, and that is clear. Obviously, the SEC is free to speak in other ways.

Mr. ROYCE. Let me ask you another question. As you know, Section 165 of Dodd-Frank requires the Federal Reserve to tailor prudential rules for non-bank SIFIs to account for differing business models including insurers. However, the Federal Reserve says it is required to impose Basel bank-centric rules on nonbank SIFIs. That is due to the Collins Amendment. Given that the Fed has taken the position now that Collins constrains their ability to tailor rules for nonbanks, would it not be prudent for FSOC to postpone further designations of insurers and other nonbanks until the Collins issue is resolved?

Ms. WHITE. Again, in terms of what I can discuss, that is certainly an issue about which there is awareness on the part of the FSOC members, and there has been discussion about that which I expect to continue.

Mr. ROYCE. My last question is about the FSOC process and whether voting members meet with firms before or after a notice of proposed designation. It is my understanding that the process does not include an opportunity for a firm to make their case that they are not systemic to the voting members of FSOC. They can't make that case themselves prior to FSOC voting to designate the firm. It seems obvious to me that potential designated firms should have an audience either with FSOC members, or as a group. Can you think of any reason why you would not meet with a firm prior to voting on their notice of proposed designation?

Ms. WHITE. Again, those protocols were set before my time, but, there certainly is input, as I understand it. There certainly is input that the companies give in advance—

Mr. ROYCE. To make their case.

Ms. WHITE. To the deputies who are actually doing the day-to-day work.

Mr. ROYCE. Yes, but not to those who are making the final decision, and, Chair White, that was the point I was going to make.

And thank you very much, Mr. Chairman. I yield back.

Chairman HENSARLING. The Chair now recognizes the gentleman from Georgia, Mr. Scott.

Mr. SCOTT. Thank you very much, Mr. Chairman.

Chair White, it is good to have you here, and I just commend you. You all have a very difficult job in having fair trading. You

are sort of like the baseball umpire, but this year for the first time baseball umpires have what they call instant replay, causing quite a bit of consternation. But I want to ask you for an instant replay here. Do you or do you not at the SEC have an action plan for order competition in the market structure?

Ms. WHITE. Do we have an action plan?

Mr. SCOTT. Yes, for a timeline?

Ms. WHITE. I'm sorry. In terms of our review of the market structure issues, including the order types and so forth?

Mr. SCOTT. Right.

Ms. WHITE. The answer is we don't have a specific timeline, but since I became Chair, as I mentioned before, this set of issues was in my list of top three immediate priorities, and I have been driving the staff very hard on all of the market structure issues.

Mr. SCOTT. May I take this as an opportunity to—

Ms. WHITE. And therefore I hope to move it quickly.

Mr. SCOTT. —stress to you to please get an action timeline. Order competition, if we lose order competition and you have all of this excessive competition that comes in, that brings all of this complexity with it, and that is what leads us to the dark side, to these dark pools.

If we allow our investment process to move into these dark pools, we are in serious trouble. And so, my concern is that a lack of this is very pressing, and this isn't the first time that I have brought this issue up. So I sense that you don't have a sense of urgency here. Do you? Am I going down a wrong hole here? Am I going down a dark hole? Don't you see a need for order competition, and if we don't have it, it will lead to these dark pools?

Ms. WHITE. There are a lot of issues in your question. First, we have a sense of urgency. I meant what I said that we are data-driven and disciplined, and we are doing a comprehensive review, which I think is the right way to do this. But that is not inconsistent with bringing a sense of urgency and intensity to all of these issues. In terms of the order types, they are, indeed, submitted by the SROs. If they have a new order type, they make a representation in terms of that in their judgment promote just and equitable principles of trade. Competition is one of the objectives of those order types. They are obviously reviewed by the SEC, and a finding needs to be made with respect to them. So these are things that are—and, again, that does not mean that one wants to make sure that the order as described, the objectives as they are given to improve market quality are, in fact, being used in that way and not in some other way. So, yes.

Mr. SCOTT. Okay. Thank you.

I just want to urge you to really move in that direction. But I do have a couple more questions. One is on this fiduciary rule. What is the problem here? My feeling has always been that that is under your jurisdiction as the Securities and Exchange Commission, so why is the Labor Department meddling in your bailiwick?

Ms. WHITE. There are two different statutory regimes where that issue—there are probably more than two, but certainly the Department of Labor under the ERISA statute has that issue before it with respect to what is under its jurisdiction. We obviously are focused on the issue from the perspective of whether a uniform fidu-

ciary duty should be imposed on brokers and investment advisors in our space.

Mr. SCOTT. Wait, one point. How close are you to working this out, because we have the business community that is in a state of limbo here?

Ms. WHITE. What I can say is—

Mr. SCOTT. It is not fair to them.

Ms. WHITE. Yes, and again, at the end of the day I have to say there are two different agencies with two different statutory regimes. But having said that, I fully recognize the importance of notice to those who may be impacted and consistency.

Mr. SCOTT. Okay. My final point I have to—

Ms. WHITE. I am in touch with Secretary Perez. Our staffs are in touch.

Mr. SCOTT. I have to get this in about the CFTC and you and harmonization, but apparently I will not.

But, thanks to the chairman.

Chairman HENSARLING. Hold that thought for the next hearing.

The Chair now recognizes the gentleman from Michigan, the vice chairman of our Monetary Policy and Trade Subcommittee, Mr. Huizenga, for 5 minutes.

Mr. HUIZENGA. Thank you, Mr. Chairman. And it is with great pleasure I get to not only welcome Chair White but my 13-year-old daughter who is here with her mom and might be getting a little embarrassed right now. But I will do my best, sweetie—not you. Sorry, Chair White. My sweetie in the back.

Ms. WHITE. That is okay.

Mr. HUIZENGA. Sorry. Sweetie in the back. Now we are both embarrassed, all right, Allie.

Chairman HENSARLING. Do we need to strike anything from the record?

Ms. WHITE. It is the nicest thing I have been called in a long time.

Mr. HUIZENGA. I know this is confusing and complicated and I will try to explain it later. But the truth is most people here don't understand everything that we are talking about either. So, this isn't the only reason why dad leaves home.

But I do want to touch a little bit on conflict minerals, and I have a couple of things here. First, no one wants to see conflict in the central African area, especially the DRC, and we need to work towards stopping any of those atrocities.

But my first question is, is does Section 1502 actually stop it? I have had a number of conversations with missionary contacts, NGOs, long-term business people in the area, who at best have mixed reviews about whether we are actually getting at the problem with Section 1502.

My question is, is this a workable, practical way to attack the problem? And as I hear from manufacturers throughout Michigan and throughout the country, they are very concerned. The compliance costs are estimated on the low end, $3 billion to $16 billion according to NAM, and then in light of the ruling from the D.C. Court of Appeals, and Mr. Chairman, I would love to submit this for the record.

Chairman HENSARLING. Without objection, it is so ordered.

Mr. HUIZENGA. Why not take Commissioners Gallagher and Piwowar's joint suggestion on staying that, and Mr. Chairman, I would like to put that into the record as well.

Chairman HENSARLING. Without objection, it is so ordered.

Mr. HUIZENGA. And while I am on a roll, can I do a third one? This is from the National Law Review about how the Federal Appeals Court holds Securities and Exchange Commission Conflict Minerals Rules—

Chairman HENSARLING. The gentleman is pressing his luck, but without objection, it is so ordered.

Mr. HUIZENGA. All right. Thank you.

What are your intentions, first of all? Are you still planning on moving ahead? The Wall Street Journal had a headline which basically stated that you are planning on moving ahead with everything other than maybe a narrow section which was identified out of the Court of Appeals, and I am curious why?

Ms. WHITE. In response to your earlier comments, obviously this is a rulemaking that was mandated for us to proceed with, so we proceeded with it. Recently the D.C. Circuit has—and I have studied this very, very carefully—upheld the vast majority of that rulemaking and really quite clearly so.

They have invalidated the portion that in effect requires the disclosure that something is not non-DRC, I think it is, and so the intentions are, and I think the reason you saw the joint statement coming out yesterday from Commissioners Gallagher and Piwowar, and there probably will be guidance from the Division of Corporation Finance, whether today or tomorrow, that reporters under that set of regulations would be required to report as to the portions of that rule that have been clearly upheld by the Court's decision.

As to the aspect that has not been upheld, clearly there would be no requirement to make those disclosures.

Mr. HUIZENGA. My understanding though, and I have started my way through the ruling, but according to this National Law Review, there are certainly other areas and other directions this may be going, and while this is hanging out there and this major question that has huge economic impact is unanswered, why not hit the pause button?

Ms. WHITE. In my judgment, obviously, the Court went out of its way to uphold, and there is a severability provision in the regulation, so the fact they invalidated that one portion clearly did not invalidate and went out of their way to say they did not invalidate the other portions. Clearly, there may be other things going forward that affect the invalidated piece of that rulemaking, but the rest of it stands on its own.

Mr. HUIZENGA. It sounds like it is a mixed view at best, and there are others—including this National Law Review article that I would actually encourage people to read—who seem to think that may not be the case, that there are going to be major parts.

So with that, Mr. Chairman, I yield back. Thank you.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Missouri, Mr. Cleaver.

Mr. CLEAVER. Thank you, Mr. Chairman.

Let me associate my comments with those earlier stated by my colleague, Mr. Capuano from Massachusetts, and I do understand that you are not in the criminal division of the Justice Department. However, it is troublesome that a 17-year-old page a few years ago stole $12 worth of things out at Crystal City, was kicked out of the page program, went through the justice system, and there are institutions, in fact, one I am thinking of now that has been convicted of fraud twice.

Now I am not one of the attorneys in this room, but it seems to me that fraud requires intentionality, that you didn't slip and do it. It is like the tongue; it is not an involuntary muscle. When you speak, even though people say I didn't mean what I said, the tongue pretty much says what we think. And so when you commit fraud, it is intentional. You were deceptive. You did criminal things, and yet nobody goes to jail. So what do you tell a 17-year-old kid who steals $13 worth of merchandise and his life is almost kicked to the curb while fat cat violators who almost sent this country over the cliff economically are guilty of billions and billions of dollars of fraud and nothing happens. They pay a fine, it is the cost of doing business. So it is one of those things that troubles me, and hopefully it troubles a lot of people.

Can you go through your admission policy that you have in your statement on Page 4? You make reference to this in your comments?

Ms. WHITE. Yes, and essentially I agree with what you just said and very strongly so in fact. Obviously, we can't prosecute. We can't put anyone in jail at the SEC, but if the evidence is there, I think it is the responsibility of both prosecutors, which I used to be, and civil enforcers, or the civil authorities, to take the evidence as far as it leads up the chain and very aggressively so.

And, again, one of my three immediate priorities when I first took this job was to make certain that we were being bold and unrelenting to the extent that we have the enforcement powers, and I think the SEC has actually a very strong record on the financial crisis cases in terms of CEOs and senior executives.

One of the first things that I did when I got here was to change the SEC's no-admit no-deny settlement protocol in order to try to increase public accountability in certain cases. Now, we have specified a number of parameters, including egregiousness of the conduct, risk to the public, a particular need in a particular case for public accountability, and I think so far we have, in major cases actually, achieved admissions. I think in seven cases, both institutions and individuals. The no-admit no-deny settlement protocol used by all civil law enforcement agencies to actually very good ends including the SEC, no litigation risk, you get there faster, you get money back to harmed investors faster, will always be part of our arsenal.

But I think it is enormously important that law enforcement have credibility as to its strength and the strength of its deterrent message, and that is why I changed that protocol, and I think it will continue to evolve.

Mr. CLEAVER. Okay. Because I only have 50 seconds left, the other issue I wanted to get into was your efforts on conforming and

complying with the Office of Minority and Women Inclusion, and I don't think we have enough time.

So I am going to yield back, Mr. Chairman, the remainder of my time.

Chairman HENSARLING. The gentleman yields back.

The Chair now recognizes the gentleman from North Carolina, the chairman of our Oversight and Investigations Subcommittee, Mr. McHenry.

Mr. MCHENRY. Chair White, thank you for being here today.

Now, you put out the OFR Asset Manager Report for comment. What was your reason for putting out the proposal for comment?

Ms. WHITE. I think transparency, and I think that any study, any proposal, benefits tremendously by input from the public.

Mr. MCHENRY. Yes, and I would say Congress has gained a tremendous amount through the comment process in the JOBS Act, and I have learned quite a bit in particular about the JOBS funding, sorry the crowdfunding section from industry leaders, and so I think it is important that we note the comment period.

I also want to commend my colleagues on the other side of the aisle: Mrs. Maloney, for her work with the JOBS Act and crowdfunding; and Ms. Velazquez for her questions about the cost challenge within crowdfunding.

So generally speaking, what is your view of the JOBS Act? Is this something you think is a wise and prudent change to securities law?

Ms. WHITE. That is a broad question. Certainly, I think the objective of the JOBS Act is one that we all should subscribe to, which is to facilitate capital formation by, in particular, smaller and to some degree start-up companies.

I think one has to always have investor protections in mind when you do any kind of capital formation both for the sake of the investors, but also for the sake of the credibility of the method you are using to raise the capital. It won't be raised to the extent that you would like it to be if there is not credibility in the protections as well.

Mr. MCHENRY. Did the SEC have the legislative authority? Did they have the authority in law to do basically what the JOBS Act legislated?

Ms. WHITE. You mean before the JOBS Act legislated it?

Mr. MCHENRY. Yes.

Ms. WHITE. I think the answer—I would have to go back and actually look at it all. Certainly, in some of those spaces I would say, yes. In other spaces, no. I would have to go back and analyze it, though.

Mr. MCHENRY. Right. So Reg D as well Reg A, those two things the SEC could have done unilaterally; right?

Ms. WHITE. I would have to get back to you on the legal authority to do—

Mr. MCHENRY. Yes, the legal authority is there. In terms of this, your answer to Ms. Velazquez, you said that you are going to keep reviewing Title III, the crowdfunding portion, you are going to keep reviewing how the regs work in the marketplace; is that correct?

Ms. WHITE. Once it is a live market, yes.

Mr. MCHENRY. Okay, now in your view, if you look at the legislative text, the law for crowdfunding, is this a workable law in your view?

Ms. WHITE. I think obviously our objective is to make it workable. I think to some extent you can't tell how workable things are until they are actually rolled out and work or don't work as well as you would like them to, which is one of the reasons that I am trying to set up the interdivisional working groups to look at these markets as they come out the door.

Mr. MCHENRY. So in terms of comments that the SEC has gotten, I have read many of them, met with a lot of the folks, in the tech world, in the securities law world, and they say that the cost of it is a challenge. The cost structure is the challenge; do you concur?

Ms. WHITE. There is no question that there are some cost challenges and certainly a number of commenters have raised those, and we certainly are attending to those comments.

Mr. MCHENRY. Which ones?

Ms. WHITE. All the comments frankly, but we are always going to be attending to those that raise—

Mr. MCHENRY. What are the concerns in particular about the audited financials?

Ms. WHITE. Some commenters have actually commented on audited financials. There are comments on other aspects as well.

Mr. MCHENRY. Do you concur with that?

Ms. WHITE. I have to study the comments.

Mr. MCHENRY. We are 2 years in. We are 2 years in, and we passed the JOBS Act 2 years and 2 weeks ago. The President signed it into law. You have been now at the SEC for a full season, if you will. You have had plenty of time to take a look at this, and so that is why I am asking these questions.

I have deep concerns, based on the comments, about the structure of the law, and with the over 690 pages of regulations the SEC has written. And additionally, I have a concern because, look, I know you want to take a pragmatic approach to this, and I just encourage you to do this and to follow-up with this so that it, and the rest of the JOBS Act, can be implemented faithfully as Congress directed.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentlelady from Wisconsin, Ms. Moore.

Ms. MOORE. Thank you so much, Mr. Chairman, and thank you, Madam Chair, for all of your service.

I have some clean-up duties to do here. Being so late in the questioning period, I would like to ask unanimous consent from the chairman to include in the record a letter to Chair White with regard to Section 1502 of Dodd-Frank which relates to conflict minerals.

Chairman HENSARLING. Without objection, it is so ordered.

Ms. MOORE. Thank you so very, very much.

Also, I am asking you, Madam Chair, how you are doing given the $25 million of your reserve fund which was basically cancelled, and how has that shifted your priorities? My colleague here was about to ask where implementation of the Women and Minorities

Provision was in your chain of priorities given the shortfall that you are experiencing through the appropriations process as well as this.

Ms. WHITE. Let me say as to our OMWI office, we have, it will be fully staffed and it is a priority, and I think there is some very good progress that is been made there, not enough and more to go with respect to that.

With respect to the reserve fund, this is an extraordinarily important funding mechanism for our mission-critical, long-term IT projects. That is what we have decided and in consultation with Congress to use it for, and we want to use it wisely.

When you are dealing with long-term IT projects and really trying to keep pace with Wall Street and the markets, they are complex contracts with complex procurement rules, and you want to get it right, but you sure want the funding to be able to carry out this EDGAR modernization. It is all of our risk-based data tools, the enterprise data warehouse, which really brings all of the information the SEC has access to in one spot.

Ms. MOORE. Thank you so much, Madam Chair.

Questions that several people have asked, including my good friend and colleague, Mr. Scott, with regard to implementation under Section 913, the Fiduciary Duty Rule, I was on a panel with one of your colleagues, Commissioner Daniel Gallagher, and I will ask you sort of the same questions I asked him. I understand the dual responsibility, but it seems to me the Labor Department is plowing ahead.

It is my opinion that there is more expertise within the SEC for this final rule, and it ought to, of course, be harmonized. And I am wondering, do you want them to take the lead? Can you just tell us a little bit about your interaction with them that would reassure us that your expertise is not the tail wagging the dog?

Ms. WHITE. I think it was before I arrived, but certainly I can speak to after I arrived. This was an issue that I was obviously apprised of for the first time during my confirmation process, providing our expertise as to impacts on the broker model has been going on. It is critical to do. I have ratcheted up, if I can say it that way, the discussions between our staffs in providing that technical expertise to the Department of Labor. I have personally met with the Secretary, twice in person and once by phone, Secretary Perez, to try to make certain that the staff's expertise is being fully understood and brought to bear.

Again, at the end of the day we are different agencies, but it is extraordinarily important that that expertise be understood, brought to bear, and that there be consistency.

Ms. MOORE. Thank you. I just have one more question. On Thursday, I read a story in the Wall Street Journal indicating that asset managers Fidelity and BlackRock were already at Stage 2 of SIFI designation, so there is a meeting on May 19th. What is the point and purpose of that meeting if you have already gone ahead, and what are the indicators that they ought to be designated as SIFIs without this analysis, prior to this analysis?

Ms. WHITE. I think, again, I can't comment on any particular company whether it is or isn't in the FSOC process. FSOC hasn't commented as well. I am aware of the media reports that you men-

tioned. There certainly is a process to gather information. I do believe the Treasury Department, when the OFR study came out, said that is a data point, but we are collecting more information about the industry.

I actually welcome the conference on May 19th, which is a public conference, to get further input, and I hope it is a constructive conference.

Ms. MOORE. Thank you for your indulgence, Mr. Chairman.

Chairman HENSARLING. The time of the gentlelady has expired.

The Chair now recognizes the gentleman from Virginia, Mr. Hurt, the vice chairman of our Capital Markets and GSEs Subcommittee.

Mr. HURT. Thank you, Mr. Chairman.

And thank you again, Chair White, for joining us today.

Before I ask a question, I wanted to say just following up on Mr. Cleaver's line of questioning, as a former prosecutor I certainly appreciate the perspective that you have brought with respect to the no-admit no-deny policy. I really do believe that is important to fostering public trust and public accountability in our markets.

Your agency has been very helpful to Representative Delaney from Maryland and me in crafting the College Savings Enhancement Act. This legislation would update definitions for the accredited investors and qualified institutional buyers definitions to include State-run prepaid 529 plans. Obviously, they are very important to families who are saving for future college expenses, and I was wondering if you could comment on: first, whether you think it is important for us to encourage that college savings; and second, do you believe that these plans are suited to be considered QIBs and AIs, similar to other plans such as State-run pensions?

Ms. WHITE. Obviously, the objective is quite important. I share that. As part of our review, which is ongoing, of the definition of accredited investor, this is obviously part of that. I think our staff from the Division of Corporation Finance has actually met with several representatives of the Section 529 plans to discuss the idea, whether through guidance or rulemaking, but they are very focused on the issue.

Mr. HURT. Okay, thank you. Also, as I indicated in my opening remarks, I think that some of the comments that you have made relating to disclosure overload are so important, and you have indicated that obviously you are trying to review this regime and trying to come up with proposals that protect investors, don't overburden investors and confuse investors and also look for ways to reduce unnecessary costs for issuers.

I guess my question is, how is that review proceeding, and are there specific things that you can think of that should be top priorities for the SEC in trying to scale disclosure requirements down the road?

Ms. WHITE. I think that in terms of the status of it, as you know, our SK report was filed at the end of last year which really does trace our entire disclosure regime and tees up the issues.

Following that, I directed the Division of Corporation Finance to, again, make this a very high priority. I think our Director has recently given a speech on this to a gathering in terms of path forward. We are seeking views quite deliberately from all constitu-

ents, issuers, lawyers who deal with disclosure, and investors, to try to make sure we have maximum information.

Obviously, you focus on intelligibility. You focus on unnecessary redundancies. You focus on whether we contributed to the issue by our comment process, which I think is enormously important for both issuers and investors to get good disclosure, but have we perpetuated some of the issues with redundant disclosure or unnecessary disclosure in a particular instance.

The overall goal, I suppose there is more than one, but it is clear that to make the disclosure regime more effective, more effective for investors but obviously to do it in a way that does not create unnecessary cost for issuers.

Mr. HURT. Do you have a timeframe for—an aspirational timeframe here?

Ms. WHITE. It is a large project. Let me say that it is one that I really am committed to getting us through, and we have embarked on this before in the history of the agency, so I don't have an end time date for it, but I also believe there are things we can do along the way to finishing it, so I would hope to see some product coming out of it. I don't know if will be—I would hope it would be this year that you will see some product come out of it, but I can't guarantee that.

Mr. HURT. Excellent.

I don't think I have time for another question, so I will yield back the balance of my time. Thank you.

Chairman HENSARLING. The gentleman yields back.

The Chair now recognizes the gentleman from Illinois, Mr. Foster, for 5 minutes.

Mr. FOSTER. Thank you, Mr. Chairman.

I was wondering if you believe that there may be some transparency initiatives that might increase investor confidence and allow the market to sort out a lot of these issues about which venues or brokers are providing the best deals for their customers? An example of this, for example, might be that when a trade is made public, along with the price, size and time stamp, that you actually make public the venue, which I take it is done in some countries. We do it I guess for exchange trades but not off-exchange trades. That might provide some transparency here.

Another example might simply be to allow or mandate that a retail customer as part of their order confirmation gets a history of all the trades made in that thing that they bought or sold or was bought or sold on their behalf for a few seconds on either side of the time their order actually got executed, so they have some idea of whether their order was filled at somewhere near the midpoint of the market and if you are looking at transparency initiatives like this, that will hopefully allow the market to sort things out.

Ms. WHITE. We are certainly looking at the transparency and at ways to enhance that transparency in an optimal way.

Again, we want to make sure we are doing what is optimal to do, but that clearly is an area that we are quite focused on, and not only to in fact enhance that transparency but also to deal with the investor, confidence in the markets, issues we were talking about earlier.

Mr. FOSTER. And does the SEC or should the SEC take a position on the optimum balance between lit and unlit exchanges or markets? What do you personally think about this, and how do you think the SEC should get involved in this issue?

Ms. WHITE. The SEC, in a sense, is involved by being obviously the overseer of our equity market structure, and the idea is to have an optimal equities market that works fairly and efficiently and competitively for the marketplace and investors bringing together those who wish to raise capital and investors and making sure it is a safe place.

I think the intent of NMS was to increase that competition, to increase market quality, and you have seen a fair amount of dispersion that has occurred. I think some of that was expected to occur, but it has obviously proceeded and has been fairly extensive, and so I think as part of our data-driven, very comprehensive review, we want to see whether there are any changes we should make from the regulatory side that might affect that or might not.

But again, I think we have to be very carful that we are not fixing a problem that isn't or not optimally addressing a problem by a change in the rulemaking but very focused on all of the questions.

Mr. FOSTER. Given the explosion in the number of venues, do you think there is adequate uniformity in the safety, soundness, volatility, and cybersecurity requirements that are placed on all of these?

Just as a simple example, it is my understanding that there are fairly uniform circuit breaker requirements at all trading venues but not as uniform limit up and limit down type requirements.

Ms. WHITE. This is what I call the systems issues, which obviously include any cyber problems with that, and are extraordinarily important to the reliability and strength of our markets.

The SEC has taken a number of actions already with respect to those issues, the limit up, limit down rules, the market access rules, all designed to make the marketplace more resilient. It is interconnected. It is obviously electronic and very high speed. Our proposed rule SCI would require even further enhancements of the system. It would apply beyond just the exchanges. It would also apply, if it is adopted as proposed, to ATS's of certain sizes in order to try to bring more into that regulatory regime which I think will enhance the markets.

Mr. FOSTER. One of the effects, as you increase out things like very strict cybersecurity requirements, to make sure that you are robust against that, that is going to impose costs on all of the trading venues, and I think that ultimately that is probably going to be a force that drives toward consolidation for the same reason that small banks are faced with cybersecurity costs.

It is one of the issues that they look at and one to see whether they should merge or be acquired. And you are going to be facing the same thing, and I imagine that may drive some consolidation in this business, and so I was wondering if that—how do you view and balance that when you are doing things that will impose almost a head cost, a capitation cost on these trading venues?

Ms. WHITE. It is interesting. Certainly with respect to the comments we have gotten on SCI, the proposed rule that I mentioned,

those are among the kinds of costs that have been cited to us, consequences that have been cited to us. Our economic analysis and our economists look very closely at that. Obviously, you have proponents of having a less dispersed market, so you have to weigh the benefit of that as you go through it, so we look at all of those factors.

Mr. FOSTER. Thank you.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from South Carolina, Mr. Mulvaney, for 5 minutes.

Mr. MULVANEY. Thank you, Mr. Chairman.

Chair White, thank you for being here. I have a couple of different questions on a couple of different topics.

Thank you, by the way, for making yourself so available. It does allow us sometimes to follow up on conversations we have had previously, and I want to do a little bit of that, but I want to start with a general question briefly about SEC investigations.

When you all investigate a particular entity, I don't care who it is, is it part of your practice to contact the clients of that entity to tell them about the fact that you are investigating that entity?

Ms. WHITE. Not as a sort of invariable step. Now, you could have witnesses who are clients, so as part of your—

Mr. MULVANEY. I am not worried about witnesses. Would it be unusual for you, if you are investigating Mr. Stutzman's company, to during the investigation, call all of his clients and say, by the way, we just want to let you know we are investigating Mr. Stutzman's company, that would not be ordinary course of business for you folks?

Ms. WHITE. That would not be, or it should not be ordinary course of business. It is not ordinary course of business if that is the purpose. Now, the caveat is there only because—and I think you excluded witnesses or people who might have relevant knowledge.

Mr. MULVANEY. Sure.

Ms. WHITE. Because obviously that can happen as a result of that.

Mr. MULVANEY. I want you to contact witnesses, obviously, we all would. So you are saying it is not ordinary course of business to reach out to regular clients and so forth?

Ms. WHITE. Not as you have described it.

Mr. MULVANEY. And we recognize how damaging that could be, especially if the investigation turns up that no wrongdoing took place. Thank you for that.

You were here, separate topic, back in February as part of a larger panel. We had you, we had Governor Tarullo, and some folks from the OCC, the CFTC and the FDIC, and I tried very hard to lay out a circumstance under the Volcker Rule to try and draw some attention to the possible overlap of jurisdiction, and I tried my best.

I am not sure I got everybody in the example, but the example that I gave was a large broker-dealer who was also a bank, trading at interest rate swaps in its banking subsidiary, and I asked him who would have jurisdiction over that, and I think I got most everybody at least having some jurisdiction, but you took the position

that as the SEC, you all would be first. You all would go first and have primary jurisdiction, and I believe Governor Tarullo agreed. In fact, what he said and I am going to read you his testimony, was that whoever—

Ms. WHITE. I wrote that down when he said it actually.

Mr. MULVANEY. So did I, and so did a lot of other people, because I think it was news to a lot of folks. He said whoever is the primary regulator of that entity has, by congressional delegation, the regulatory authority over them. He went on to say that if it is a broker-dealer and the SEC is okay with what practice the broker-dealer is pursuing, then no, then we don't have, none of the rest of us has the authority under the Volcker Rule and the statute to say, no, that is incorrect. He went on to finally say there is not really shared jurisdiction over a particular trade.

Is it your understanding that he was right in saying that? Are there limitations? Are there caveats? Are there exceptions to this, or is that the general policy of the SEC, the FSOC, the Treasury, and everybody?

Ms. WHITE. That is how it should work where it is clear who the primary regulator is, and I think it is in that example, the broker-dealers would be the SEC. What I actually did add, I guess I have to fess up, at the hearing, when you asked it before, though, is that you are clearly trying to also have consistency among the agencies as to some of the interpretive issues that may, in other situations, spill over to some other kind of entity where the primary regulator is someone else.

Mr. MULVANEY. Right. But, and again, that is fine. There may be certain exceptions. I am painting with a broad brush now. If there are circumstances where everybody seems to agree that the SEC is the primary regulator and you say—you bless some practice, some security program, some software for your broker-dealers over how to deal with the Volcker Rule, the OCC or the CFTC can't come in later, in other words, and say no, that is not acceptable?

Ms. WHITE. That would certainly be my understanding.

Mr. MULVANEY. Good. Thank you very much for that.

Last one, and I am trying to go quickly because I only have a minute left. I want to follow up very briefly on a question that Ms. Moore asked before she left dealing with the ongoing analysis for the systemic classifications for asset managers, mutual fund companies, those types of things. I understand that BlackRock and Fidelity came under some scrutiny because of the size of some of their assets.

Would you agree with me generally that by the nature of the business, asset managers will be less likely to pose systemic risks than large financial institutions and banks that do investment work?

Ms. WHITE. Again, I can't comment on what stage this analysis is—

Mr. MULVANEY. I am not asking about this. I am talking about in general context.

Ms. WHITE. —with an FSOC, but I think it is an extraordinarily important difference that the asset managers are based on an agency model from the point of view of systemic risk.

Mr. MULVANEY. Will your analysis of asset managers generally, not BlackRock and Fidelity specifically, but generally, will your analysis vary because of what you just said and your recognition that the risks that they face are different or less likely to pose risk than those of other financial institutions?

Ms. WHITE. It is certainly a highly relevant factor.

Mr. MULVANEY. Have you all developed the metrics yet for doing the stage 3 analysis of asset managers?

Chairman HENSARLING. Quick answer, please.

Ms. WHITE. I really can't comment on that because of the FSOC—

Mr. MULVANEY. Again, I am not asking about specifics. It was just general.

Thank you, Mr. Chairman.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Michigan, Mr. Kildee, for 5 minutes.

Mr. KILDEE. Thank you, Mr. Chairman, and thank you, Chair White, for your candor.

I haven't been able to catch the entire hearing. I watched a lot of it on television, so hopefully some of the questions—a couple of the questions that I might ask you, you may have answered in some form or another, but I would like to just focus on a couple of particular areas.

One is somewhat more of an operational question but it does affect the mission. With some regularity here at this committee and at other places, the issue of whether the SEC has the necessary resources to support and carry out its regulatory and enforcement obligations does come up from time to time, especially after the 2008 crisis and the reforms that followed, we saw your responsibilities, your agency's responsibilities significantly increased, and while there may be legitimate disagreement over the question of your authority and what the legislation provides for, I think, I would hope that we would find more agreement on providing the necessary resources in order to execute whatever your mandate is.

I know something about this, having been 25 years in local government in a very distressed community, I was the county treasury, I had to continually figure out ways to meet my obligations with fewer and fewer resources, so I have some empathy.

And so I wonder if you could comment, as you consider the challenge of having to do more with less, can you talk about some of the choices, presumably realignments or other sort of judgments that you have had to make in order to meet your regulatory obligations in the period of this sort of post-crisis world, and additionally, if you could comment on another aspect of your work, the enforcement function, particularly since it can, in some cases, generate revenue through punitive fines, whether additional resources would allow the SEC to investigate more quickly more allegations of wrongdoing within the securities field. If you could just sort of touch on the general subject of resources and how it affects your mission, that would be good.

Ms. WHITE. That bottom line is that I sincerely believe we are underresourced for the responsibilities that we have, and it is of great concern to me. I think on the enforcement side, which is our

largest division, and I believe I cited the figure in my oral testimony of just last year the Enforcement Division's work actually yielded orders to return $3.4 billion in disgorgement or civil penalties, and our Fiscal Year 2014 budget is $1.3 billion. Of that $3.4 billion, I think we have already collected almost $2 billion. That is just a metric, but it gives you some perspective on that.

We didn't get—in our budget last year, we had sought 450 additional positions for exam and enforcement. I have talked before and it is the one that just kind of hits you between the eyes of needing to adequately cover the examination of investment advisors, so important to all investors, and we just do not have the resources to do that.

We are trying to be smarter about it. As I mentioned before, we are using risk-based tools to go to the places of greatest risk. If you think about doing things like moving resources, let's say, from the broker-dealer exam side over to the IA side, the problem there is you look at what we find when we go to the broker-dealers and we find deficiencies and problems almost everywhere we go, a lot of those broker-dealers are also migrating to the IA side.

At least some would say because it is actually, we are not there as much, and the industry knows that, and as I say, you have very responsible members in the industry kind of saying the same thing. Our industry needs the SEC to have more resources in order to be able to make this industry safer and have more credibility with the investors.

Mr. KILDEE. So help me understand a little bit what that means, how that translates to the interest of a consumer, just to put it in plain language. What does that mean when you are not able to pursue some of cases that might come before you, what are the potential consequences that a consumer might face as a result?

Ms. WHITE. Frauds can go absolutely undetected, or on the exam side, again, when we actually go to the exam site, particularly when you are talking about investment advisors to retail, but we see it on the institutional investors, too.

We find a large percentage of problems. Ponzi schemes, we find situations where fees have been misallocated. One benefit we get from, I think since Fiscal Year 2012, just because we were there, no action taken at all, we pointed out a problem, and $28 million was returned to investors. If we weren't there, that wouldn't have happened.

Mr. KILDEE. My time has nearly expired, so I will yield back my remaining 5 seconds.

Thank you very much.

Chairman HENSARLING. The chairman will kindly take your 5 seconds.

The Chair now recognizes the gentleman from North Carolina, Mr. Pittenger.

Mr. PITTENGER. Thank you, Mr. Chairman.

And thank you, Chair White. We appreciate your testimony today.

I would like to ask you, in a February speech you suggested that regulators should be distinguishing between prudential risk and other types of risk and that regulators should avoid taking a rigidly

uniform regulatory approach based on the banking concept of safety and soundness. Could you kindly elaborate on these points?

Ms. WHITE. Yes. The concern that I have is, obviously, as a capital markets regulator, it is built on different structures. Our sense of what capital is needed, our net capital rule is built on making certain that if a broker does fail, that the customers' monies and securities are safeguarded, and I think when all of us, frankly, and the SEC is also addressing systemic risk, as we should be, we need to be very careful, also true of market structure issues, that one size doesn't necessarily fit all.

And I think one thing we have to be very careful about as we do more of the systemic risk regulation is we are looking very closely at the impacts on the capital markets, for example, and on the liquidity of the markets and so forth, so that is what I meant by it.

Mr. PITTENGER. Thank you. Chair White, according to the SEC staff estimates I have read, the SEC employs 59 economists, at the same time it employs 1,750 attorneys. One measure that illustrates, in my perspective, the limitation of prioritizing economic analysis and the rulemaking is the ratio of economists versus lawyers at the SEC.

It seems to me that the SEC should rely upon economic analysis to decide not to propose or adopt a regulation and to do so only after considering the costs and benefits. If empirical evidence, economic theory, and compliance cost data are essential to cost-benefit analysis, is it reasonable to expect that lawyers who are not trained in such matters should be responsible for carrying out the cost-benefit analysis of the agency's rulemaking?

Ms. WHITE. Our cost-benefit analysis is primarily done through our division of economic risk analysis, which is where our economists are and—

Mr. PITTENGER. Would you say, Madam Chair, that the use of economists would be a more prudent use and the likely source than the larger amount of attorneys that you have?

Ms. WHITE. I think you have to—again, the fastest growing division is our division of economic risk analysis where our economists are housed. They are enormously useful to the agency even beyond rulemaking. They really are.

So I am all for increasing the number of economists we have, the number of other kinds of market experts we have. And by the way, we have, I think the Enforcement Division has over 20 now who are market specialists, which I think is essential. You don't want just lawyers doing that, but we are also obviously a law enforcement agency charged with enforcing and assuring compliance with the Federal securities laws, and we review the financial filings of companies, and so naturally you are going to have a lot of—you are going to need a lot of lawyers in those spaces, but I take your point.

Mr. PITTENGER. A lot of attorneys.

Ms. WHITE. It is a lot of attorneys.

Mr. PITTENGER. Yes.

Ms. WHITE. Good ones.

Mr. PITTENGER. Madam Chair, does the SEC evaluate whether specific regulations tailored to impose the least burden on society,

including market participants, individuals, different size businesses and other entities, including State and local governments?

Ms. WHITE. We certainly try with all of our regulations to have them be cost-effective. Obviously we have to—if we identify something we need to achieve, there may well be costs with respect to achieving that set of benefits, as we see it. But what you are clearly trying to do is do it in the most cost-effective way for all constituents.

Mr. PITTENGER. Thank you.

I yield back my time.

Chairman HENSARLING. The gentleman yields back.

The Chair now recognizes the gentleman from California, Mr. Sherman, for 5 minutes.

Mr. SHERMAN. Thank you.

The debt markets do a lot more to finance business enterprise than the stock market. A bond manager who doesn't get the highest rate of return with the bonds with the highest rating is going to be an ex-bond manager. So the key to the flow of many trillions of dollars that finance business and local government is the credit rating agency.

In Dodd-Frank, there was the Frank and Sherman Amendment that dealt with the issue of the enormous conflict of interest, where the people selling the bonds, pick and pay the bond rating agency. And as I said here before, if I could pick and pay the umpire, I would have statistics better than Babe Ruth.

So, the law requires that you either implement a system in which the SEC picks the umpire, the credit rating agency, or that you come up with something better. Where do you stand on that? What is the progress?

Ms. WHITE. First, I think it is an enormously important area to address. In terms of the conflicts of interest, I think, at least as we read this statute, we need to determine after our work if it is in the public interest and then we make the choice that you are indicating is there.

One thing I will say on the credit rating agencies, alluded to earlier in a question, is the 2011 corporate governance, I will call them, proposals to enhance disclosure and other governance mechanisms surrounding conflicts. That is a rulemaking priority in 2014 but that is not what you are talking about.

Mr. SHERMAN. I regard that all as window dressing. I am focusing—

Ms. WHITE. I hope it will be more than window dressing because I am spending a lot of time on it.

Mr. SHERMAN. Let's focus on it for a—

Ms. WHITE. I am not avoiding your question at all, because I think it is enormously important. We had our roundtable last year. I met with the staff several times on this, and it is something that we are proceeding with, but I cannot tell you—proceeding with meaning making a decision as to what we should do, what findings we should make. All I can tell you, as I sit here now, because it is still in discussion with the staff and my fellow Commissioners, is I think it is enormously important to address it effectively. I know that—

Mr. SHERMAN. I will just tell you that the American and National Leagues have the league picking the umpires.

Ms. WHITE. I got you.

Mr. SHERMAN. And it works better.

Next issue, the Securities Exchange Act of 1934 has a provision where you are supposed to determine what is in financial statements, the format, et cetera. You have delegated that all to the FASB. You have outsourced that power, and maybe that is a good idea, but I don't think it relieves you of an obligation to at least look at what they are doing.

I don't know if you focused on their proposal to capitalize all leases. The effect of that would be to add $2 trillion to the balance sheet of American businesses, $2 trillion in assets, and $2 trillion in liabilities. The effect of that would be to cause about half of all small businesses and medium-sized businesses to be in violation of their loan covenants because the ratio is not just assets to liabilities, the ratio is liabilities to owner's equity, so if you add trillions of dollars to balance sheets, everybody's ratio is off.

The effect would be to penalize any business that signs a long-term lease. Normally, I would say what is the FASB should be left to the FASB, but the people in power, Congress, we empower you, and you have empowered a group in Norwalk, Connecticut, that nobody has ever heard of, and the effect this is going to have on our economy is enormous. I don't know if you would prefer to respond for the record or whether this is an issue you focused on.

Ms. WHITE. I am aware of the issue. I probably ought to give you a further response for the record, and I agree that we retain that ultimate responsibility also.

Mr. SHERMAN. Given the effect this will have on small business and on real estate, please don't say, that is somebody else's responsibility. We delegated it to you, you are responsible.

And finally, I have 11 seconds. I will yield them back.

Chairman HENSARLING. The Chair now recognizes the gentleman from Ohio, Mr. Stivers, for 5 minutes.

Mr. STIVERS. Thank you, Mr. Chairman.

Chair White, thank you for being here. I appreciate all your time and your candor today.

I am going to try to get to four topics, but we will see how that goes: asset managers; money markets; market structure; and municipal advisors. I will have to be quick.

On the OFR report, it seems to me that the OFR failed to look at risk, or activities. They only looked at size of the money management industry, so I have some yes-or-no questions I wanted to run by you that would help me understand.

Did the Securities and Exchange Commission interact or collaborate with the FEC on the asset management report?

Ms. WHITE. As I mentioned, we provided our technical expertise and provided some comments, some of which were taken, some of which were not.

Mr. STIVERS. So, some of the comments were taken, some were not. I guess that gives me a little bit of concern because the FSOC is dominated by banking regulators that have no real experience with asset managers, so my next question is, has the FSOC created a forum for the SEC that regulates money managers to educate the

other FSOC members about money managers? I know they are having this May 19th half-day forum, but have they engaged you in any formal way to educate the other FSOC members?

Ms. WHITE. We certainly have done that at the deputies level, and that work does continue. OFR actually did this study and provided it to FSOC, all the members of FSOC, but that is on ongoing process.

Mr. STIVERS. So I know OFR is supposed to educate the FSOC or research for the FSOC, but if they don't do their research correctly, it impacts the outcome of the FSOC, and I am concerned. I know Ms. Moore talked about the May 19th forum. It concerns me that they moved forward with the designation process before they did their education. It seems to be a designate first, ask questions later mentality, and I hope you will go back to the FSOC and share my concern and the concern of many of us about that designate first and ask questions later mentality.

Given that you only have one vote on the FSOC, do you think Congress should consider amending the FSOC structure so that independent regulators like yourselves and the SEC have a multifaceted voice?

Ms. WHITE. Again, I think that is ultimately Congress' judgment. I think it is enormously important that independent expertise be fully listened to, but I think that is Congress' judgment how to structure FSOC.

Mr. STIVERS. I appreciate it. And that leads me to my second question, because I do think that the FSOC is bullying some regulators and has a history of bullying the SEC, my example there is on money market mutual funds. And Commissioner Piwowar wrote a Wall Street Journal editorial on February 28th entitled, "Give Investors Money Fund Choices," where he talked about a choice proposal. Have you looked at that, and do you think that would satisfy the FSOC's concerns about money markets and allow the SEC to have the independent jurisdiction it has currently and is given from Congress?

Ms. WHITE. Let me say the SEC is proceeding with its proposal independently, and we have an outstanding proposal.

Comments have come in and we are in active discussion between the staff and the Commissioners. I am aware of Commissioner Piwowar's thinking on this, and obviously, everything will be discussed, but just as a bottom line, we believe our proposal was robust, I expect our final rule to be robust, and it is the SEC proceeding independently.

Mr. STIVERS. I hope you will take the choice proposal seriously because I think it allows for folks to run their businesses the way it makes sense, yet provides some structure. You don't need to comment on that, but I hope you will take that seriously.

With regard to market structure, you said earlier to the chairman of our Capital Markets Subcommittee that the market is not rigged, but the market certainly does what it is told to do, and under Reg NMS from 2005 till today, it has forced behaviors in the markets, and I hope, and I guess I am asking, are you willing to open up Reg NMS and take a serious look at how that is driving behaviors in the marketplace and how it is affecting consumers and especially mom and pop consumers?

Ms. WHITE. The answer to that is yes, it is part of the comprehensive review in terms of all the impacts that regulation may have had.

Mr. STIVERS. I have 15 seconds left. My municipal advisors bill—I appreciate you enacting most of it by rule. We sent you a letter on January 9th asking for a few changes, and I hope you will take a serious look at those. I know you have responded, but I would ask you to take a serious look at completing your work so that we don't have to act.

Thank you. I yield back my nonexistent time.

Chairman HENSARLING. The Chair recognizes the gentleman from Michigan, Mr. Peters, for 5 minutes.

Mr. PETERS. Thank you, Mr. Chairman.

And Chair White, thank you for your testimony and for all your work implementing both the Dodd-Frank and the JOBS Acts.

Today, I would like to ask about the Commission's authority to determine the standards of conduct for broker-dealers, and investment advisors. As you know, during the debate of the Dodd-Frank Wall Street Reform and Consumer Protection Act, I advocated for an approach that would reduce systemic risk and transparency and certainty in the markets. I believe that any new regulatory framework for broker-dealers, and investment advisors must protect the interest of retail investors, retirement plan participants, and sponsors from unfair and deceptive practices as they seek investment advice.

While robust investor protections are critical, any new framework should be crafted very carefully to avoid limiting access to investment education and information for working families. This could ultimately result in worse investment decisions by participants and would in turn increase the cost of investment products, services, and advice that are absolutely critical parts of sound investment strategy for consumers.

I believe that it is critical that any new fiduciary rules issued by any agency follow guidelines as were set forth in the Dodd-Frank Act. Those guidelines were carefully structured to ensure that working families continue to have access to investment assistance, and additionally, recognize the importance of having a single uniform fiduciary standard to avoid any potential investor confusion.

As you know, I wrote to you earlier this year urging that the SEC move forward on this issue as intended under Dodd-Frank, and ensure that any rulemaking is completely harmonized with efforts by any other regulators. And I appreciated your very timely response in which you mentioned that the Commission staff is coordinating with and providing technical assistance to the Department of Labor staff as they consider potential changes to the definition of fiduciary.

My first question, ma'am, is beyond providing technical assistance to the Department of Labor, could you elaborate on other current efforts around this issue at the Commission currently?

Ms. WHITE. Yes. I think it is an extraordinarily important issue. I prioritized it for the staff for this Fiscal Year, and I think it is extremely important that the Commission get to a point of deciding how to proceed in that timeframe.

In terms of—I am not sure if you are asking about the Department of Labor. I have actually increased, I think, our staff's providing of technical and expert assistance to the Department of Labor and have actually gotten personally involved in several discussions with the Secretary of Labor on that as well, but to ensure that our expertise is being understood and that there is no sort of mistranslation, I just want to make sure we are providing all the expertise we can. At the end of the day, obviously, they are a separate agency than we are, but we understand the consistency concern.

Mr. PETERS. Let me drill down a little bit on that comment, if I may. So in Dodd-Frank, Congress directed the SEC to study whether having different standards of care for broker-dealers and registered investment advisors could create some confusion for investors. So, if the Department of Labor moves forward with its new definition, there very likely will be very different standards for the care of an IRA versus non-retirement retail accounts. Is there anyone at the Commission currently studying whether that would cause harmful confusion specifically?

Ms. WHITE. We certainly are looking at all of those issues and those potential impacts. I don't know—I would have to get back to you as to whether there was sort of a formal study of that. I am not sure it is a formal study, but obviously we have a lot of knowledge in that space.

Mr. PETERS. It would be nice if you could, if you would, ma'am, get back to us specifically if someone is working on that in particular, and also, on a follow-up, what about studying the economic interactions of the SEC project in the Department of Labor, how they may impact the economy?

Ms. WHITE. That is certainly part of the discussion, and we are also having our economist talk to their economist kind of about the broad range of possible impacts.

Mr. PETERS. Would you mind following up with me as well on specifics on that?

Ms. WHITE. I would be happy to do that.

Mr. PETERS. Great. Thank you so much. I yield back my time.

Chairman HENSARLING. The gentleman yields back. The Chair now recognizes the gentleman from Illinois, Mr. Hultgren, for 5 minutes.

Mr. HULTGREN. Thank you, Mr. Chairman. And Chair White, thank you so much for being here. I understand the SEC is close to finalizing new regulations on money market mutual funds which provide a unique and widely used municipal cash management product and help create liquidity in the municipal bond market through its purchases of municipal bonds. I am really concerned about the impact of a floating NAV and what that could have on municipal financing in a time when many State and local government budgets are already stressed. I am concerned because these bonds are a key lifeline to cities and towns, a tool that invests in the future and has a significant impact on State and local infrastructure.

Your proposed rule would exempt Treasury and other government funds from the floating NAV under the rationale that these funds didn't exhibit major outflows during the financial crisis. But

just as those funds were stable, municipal money market funds were very stable during the 2008 financial crisis as well and during other periods of market stress, is the Commission considering treating municipal funds the same as Treasury and other government funds, and have you adequately considered the impact of floating NAV on State and local governments?

Ms. WHITE. That is certainly one of the issues that we are acutely focused on. There were certainly a number of commenters who have discussed that in very useful and constructive ways, and we are quite focused on that. There is also, at least as proposed, if we were to go the floating NAV route, an exemption for retail which would not completely absorb that field but would, to some extent, but we are certainly focused on exactly the issue that you teed up.

Mr. HULTGREN. Thank you. Registered investment companies are highly regulated by the SEC and use little to no leverage and don't fail like other financial institutions, given the assets they manage are not on their balance sheets. They also are one of the most heavily regulated participants in the financial markets, subject to extensive regulation and supervision by the SEC. Yet, the Office of Financial Research's asset management report only briefly references the regulatory regime to which mutual funds and other asset managers are subject, and the FSOC has turned its sights to reviewing these registered investment companies for systemic designation.

How significant a role is the SEC playing in the FSOC's review of asset managers, and shouldn't your agency's voice be paramount as the only securities regulator on the FSOC?

Ms. WHITE. The answer is that we are playing a very active role in the process—processes, I guess I should say, as they go forward, particularly at the deputy's level and specifically with respect to making certain that the full range of the existing regulatory regime is understood as we go forward. We are certainly trying, and really have from the beginning. It was decided by FSOC as a group that this is an industry that needed to be looked at. They asked OFR to do the study we have talked about before. I have explained what the SEC's role was in that, but as we go forward, we are continuing to provide really quite extensive input.

Mr. HULTGREN. Okay. I would also like to discuss Section 913 which authorizes but does not require the SEC to extend the fiduciary standard of conduct applicable to investment advisors to broker-dealers when providing advice about securities to retail customers. I am concerned that imposing a fiduciary duty on broker-dealers could limit investor choices and restrict products and services that are available to customers. I know that the Department of Labor is also considering imposing a fiduciary standard that could impact broker-dealers and investment advisors. I wondered, should the SEC consult and coordinate with other Federal agencies and State regulators before deciding to move forward with rules—implement Section 913? Do you believe that the Department of Labor should suspend its rulemaking until the SEC completes a Section 913 rulemaking?

Ms. WHITE. Again, I don't think I can tell the Department of Labor what to do. I think there is a good constructive recognition by the Department of Labor and the SEC of how their rules could

differ or may not differ, but the importance of consistency there. We certainly, with respect to our own judgment under Dodd-Frank, are trying to get maximum input from all constituents, and we did put out a request for information I think last—I want to say last March, it might have been—I think it was last March, we got a lot of very useful responses to that.

Mr. HULTGREN. Even if investors are confused about the differences between broker-dealers and investment advisors, is the only solution to impose a fiduciary standard of care on broker-dealers? Could investors be better served and better protected through additional disclosure?

Ms. WHITE. And that is one of the critical issues as to how far can disclosure go to deal with the issue as it is perceived, plainly part of the discussion, the thinking and thinking about alternatives as well.

Mr. HULTGREN. Thank you, Chair White. My time has expired. I yield back. Thank you, Mr. Chairman.

Chairman HENSARLING. The time of the gentleman has expired. The Chair now recognizes the gentleman from Washington, Mr. Heck.

Mr. HECK. Thank you, Mr. Chairman.

Madam Chair, thank you for your service. And thank you for your presence today. There have been a lot of questions about high-frequency trading. I especially appreciated Mr. Garrett's very direct question, is the game rigged?

With just about anything in society, you are going to have those who believe thusly—a significant percentage of the population believes Elvis is still alive, but at least in that case, there wasn't anybody as reputable as Mr. Lewis writing what is seemingly a very well-researched book, so in all of the back and forth with all the questioners, I never heard you categorically state that the small investor is not at a competitive disadvantage.

And so, I am asking, first, if you are willing to do that, and second, if you are, don't talk to us as if we are talking to the camera, to the small investor, say in terms they can understand that they are not at a competitive disadvantage and here is why.

Ms. WHITE. And I appreciate all those questions actually. I don't want to speak beyond where I should or can, but I want to be very clear that—and I think you have seen, including in the commentary after the book has come out by a number of different investor constituencies, that there are market metrics that most agree with that would suggest that the current market structure, which obviously includes the technology and the speed issues that have been talked about, redound to the benefit of the individual retail investor.

Now, that doesn't necessarily tell you whether there are other things we might do to increase market quality even further for the individual retail investor, but I want to be very clear that the market metric suggests that the retail investor really is well-served, very well-served by the current market structure.

Mr. HECK. So, on an unrelated topic, the Commission proposed a regulation in January including, I think, what could only be characterized as a sweeping preemption of State regulation for small issuers.

It seems to me that State regulation of small issuers is kind of in their wheelhouse because it is a more intimate, as it were, face-to-face backyard kind of an endeavor, and I understand the concerns about 50 different rules, but as you know, they have entered into a memorandum of agreement to completely avoid that, and given what you have said about the resource constraint you are under, I do not understand why you would sweepingly preempt State regulators from, in effect, partnering with you to ensure appropriate practices in the market unless you are just completely opposed to any State regulation.

So, where are you on that, Madam Chair?

Ms. WHITE. First of all, our State regulators are extraordinarily important partners of ours and are protectors of investors, so let me be very clear about that. In terms of what we call the Reg A-plus proposal, our goal, maybe their goal, is to make it a workable rule with strong investor protection, and so one of the things that we considered and continue to consider is there is a GAO report and other data which suggests that one of the reasons that the current Reg A exemption, it goes up to 5 million, is essentially not used, and it is not just the 50 States or the possibility of 50 States review, but that is a significant factor in terms of why it isn't used.

One of the things we did in that proposal was to tee up very clearly the coordinated State review, which I think we have made a lot of progress on. Our staffs are meeting about exactly where that stands, what that means, how we should consider that as we go forward. That is something that we would continue to watch closely to see whether that might not ameliorate some of these issues.

Mr. HECK. Are you saying that you would consider walking back the sweeping preemption?

Ms. WHITE. Basically, we are considering all comments. That is obviously a very significant issue. One thing that should be clear—obviously, the States have their antifraud powers, they can require notice filing under the proposal as it exists now of anything filed with the SEC. Fees, filing fees can be charged on that, but what we are really talking about is that substantive review of offerings that could be in multiple States that have been shown not to be workable, but we are working on it.

Mr. HECK. Thank you, Madam Chair.

Chairman HENSARLING. The time of the gentleman has expired. The Chair now recognizes the gentleman from Pennsylvania, Mr. Rothfus.

Mr. ROTHFUS. Thank you, Mr. Chairman, and thank you, Chair White, for your attendance here today and for letting us have some time with you. Mr. Stivers and Mr. Ross touched on the money market fund. I just want to touch on that a little bit. Can you tell where the SEC stands right now with respect to the final rule, when we might be seeing that come out?

Ms. WHITE. I can tell you that it is in active discussion between the staff and the Commissioners in terms of a final rule. I would expect it to reach a final stage in the near term. I don't want to be more specific than that, but we are working very hard on it. It is an extraordinarily important rulemaking, and I expect it to be in the near term of the Fiscal Year.

Mr. ROTHFUS. And you are not willing to define "near term" for us today?

Ms. WHITE. I am not willing to define any further than that. I am not sure I used that phrase with other things yet, but I would expect it to be in the next—I better leave it at near term.

Mr. ROTHFUS. Can you tell us whether the Commission is taking into account the report language included in the recent omnibus that directs the SEC to consider how any proposal would impact borrowing costs on businesses and local governments and returns for investors?

Ms. WHITE. No question that this rule is taking into account those impacts or potential impacts, other costs, other benefits, obviously, but our economists have been working on this rule for a very long time, these sets of issues, and continue to do so. In fact, we put some recent studies into the comment folder.

Mr. ROTHFUS. One of the things I read recently was that between 1985 and 2008, people who used money market funds, whether they be small businesses, pensions, counties, cities, or municipalities, in the aggregate have earned $450 billion more than they otherwise would have by virtue of having the money market funds there, and there is considerable concern with the floating NAV proposals, and I think you received 1,442 comments on the proposal rule, and 1,387 were opposed. That is 96 percent opposed to the floating NAV proposal. And I look back at an additional $450 billion that could have gone to investors, savers, counties, municipalities, and that, to me, that would be a concern, and I am wondering if the SEC shares those concerns?

Ms. WHITE. The SEC certainly is looking at and taking seriously all of those comments, all of the possible impacts from whatever final rule we agree upon. I think we study all the comments in every one of our rulemakings, but this is one the SEC has been studying for a very long time and very deeply, and we continue to do it.

Mr. ROTHFUS. Mr. Pittenger talked a little bit about some cost-benefit analysis that the SEC may engage in, and I think he raised a point about different-sized entities, and I think you responded something to the effect that you are trying to be cost-effective, generally speaking. I guess my follow-up question to that is, does the SEC take a look at a regulation and analyze its impact on the ability for a large firm to comply, and then separately analyze the ability of a small firm to comply?

Ms. WHITE. We do. We do look at it in those ways, and we also look for ways in all of our other requirements, whether it be our disclosure regime, or as we think about possibly doing the tick-size pilot. We are constantly thinking in those directions.

Mr. ROTHFUS. What about taking into account a particular regulation's impact on jobs and wages? Is there a specific analysis of that? And I am not talking about a job that might be created because somebody has to hire somebody to comply with the regulation.

Ms. WHITE. Yes. The answer is we look at all—I have to see how formalized those factors are, but we do look at all of the impacts from our rules. I probably ought to respond further with more specificity.

Mr. ROTHFUS. I would be—specifically with respect to jobs and wages because we see insufficient job growth out there and insufficient wage growth. Also, the impact—I am wondering if you look at how a regulation may impact on investor choice and liquidity.

Ms. WHITE. We certainly do look at that.

Mr. ROTHFUS. Okay. I thank you for being here, and I yield back my time.

Chairman HENSARLING. The gentleman yields back.

The Chair now recognizes the newest member of the committee, the gentleman from Nevada, Mr. Horsford, who is either moving very far or very fast to be in the ranking member's chair. It is very late in the proceeding today. The gentleman is recognized for 5 minutes.

Mr. HORSFORD. Thank you very much, Mr. Chairman. Thank you for this informative session, and thank you, Chair White, for testifying before this committee. I want to touch on just three quick issues. The first is regarding cybersecurity. Before joining this committee, I served on the Homeland Security Committee's Subcommittee on Cybersecurity, and we know that a cyber attack on an exchange or other critical market participants could have broad consequences that impact a large number of public companies and their investors.

So, besides hosting these important roundtable discussions that I understand that you had recently, can you talk about what the SEC is doing with regards to mitigating cybersecurity risk?

Ms. WHITE. Two sort of primary areas. One is in 2011, our Division of Corporation Finance put out a disclosure guideline in terms of what issuers ought to be attending to in terms of their disclosures of the risk factor of cyber events. With respect to the reg SCI proposal that is pending, that is a proposal essentially to require SROs and alternative trading systems and others to enhance their systems from possible disruptions really from any source but including specifically on the cyber side.

One of the—by the way, I thought one of the purposes of our roundtable, and I think it may have succeeded in this, was to bring together people from different parts of the government so that it wouldn't be you are doing this and you are doing that but who actually has the ticket for certain things, so one of the issues that comes up in the disclosure space is that we basically require issuers to disclose what is material. They are worried about giving a roadmap to the next hacker, but that doesn't mean that information shouldn't go somewhere else, confidentially, and it also doesn't mean our government shouldn't be providing information to the private sector to better protect us all.

Mr. HORSFORD. Thank you. My second question deals with the list of regulatory priorities for 2014. I noticed that a rulemaking requiring publicly traded companies to disclose information on political spending to its shareholders was not on the list. Can you discuss why this issue is not on the list of priorities for 2014?

Ms. WHITE. I think what you are referencing is the Reg Flex Agenda for this Fiscal Year. When I prepared that agenda, I put such items on the agenda that I thought the Commission could accomplish in that time period for the remainder of the Fiscal Year. A number of items, including the one you reference on political con-

tributions, was taken off under that standard. If you look at our agenda, it is also—a large percentage are congressionally-mandated rulemakings, which I have prioritized at the Commission.

Mr. HORSFORD. Okay. My final question deals with the SEC enforcement. As many of my colleagues have discussed today, there is a common perception that the SEC pursues lesser violations of the securities laws rather than major violations such as those that contributed to the financial crisis or more recent scandals. Recently, the SEC just yesterday, I guess, on a 3–2 vote granted a waiver so that a bank can continue to benefit from the well-known seasoned issuer (WKSI) status, despite that bank's involvement in Libor manipulation.

Congress has passed numerous bad actor provisions intended to both serve as a deterrent to others as well as better protect investors, and yet as Commissioner Stein notes, the SEC's Web site is replete where waiver after waiver for the largest financial institutions and that some firms may just be "too big to bar."

Are you concerned at all that the Commission continues to grant these waivers, and are you concerned that it is easier for a large firm to receive these waivers than some smaller firms?

Ms. WHITE. First as to the SEC's record on—and during the financial crisis and the recent scandals, again, we can't put anyone in jail as I have said, but if you look at the record of enforcement, it is an extraordinarily impressive one, I think both in terms of the complexity of the cases, the names of the institutions, the largest banks being included in those, I think 70 CEOs and other senior executives, so I really think our enforcement program is extraordinarily strong and it is important that it be very strong. In terms of, sorry—

Chairman HENSARLING. Continue.

Ms. WHITE. Okay. So that is enforcement, on the enforcement side. I think what you are referencing with respect to the so-called WKSI waiver, it is not an enforcement remedy, but it can be a consequence of an enforcement action whether by us at the SEC or of the Department of Justice. I can't talk about specific cases, but we apply the policies that pertain to that particular space and do it very faithfully and vigorously.

Chairman HENSARLING. The time of the gentleman has expired. The Chair now recognizes the gentleman from New Mexico, Mr. Pearce.

Mr. PEARCE. Thank you, Mr. Chairman. And thank you, Chair White. I appreciate your straightforward and honest answers here. As I look at the appropriations bill coming out MILCOM, VA, vet funds, buildings, things to—quality of life for our soldiers and they are getting a 33 percent cut according to the President's budget, you are requesting a 30 percent increase to $1.9 billion. You think that is justified in the budget that we are facing seeing that our soldiers are probably going to have less facilities and less pay?

Ms. WHITE. I, of course, would advocate fully resourcing and taking care of our soldiers without any question about that. I do think our budget request is fully justified. Obviously, I have written the justification for it. I described earlier, I think, our extensive and really growing and new responsibilities to carry out what Congress has mandated we carry out for the market investors and capital

formation. I think we need and we have been surgical about that request. We are deficit-neutral.

Mr. PEARCE. Okay. I appreciate that, and we could get into a very good discussion about if our soldiers were allowed to charge the customers they protect, they could be budget-neutral. We could also say that if the Administration wasn't shutting down mines, the increase in oil production on Federal lands is only 6 percent, private land, 61 percent in last year, so we could have a very interesting discussion there, but that is not really where I want to go.

During the time that we saw Bear Stearns, Lehman Brothers' collapse, Bernie Madoff, Allen Stanford, and MF Global, the charts show us that the SEC budget actually went up by almost 5 times, and so during a period of tremendous budget growth, we are finding that the SEC was doing very little more in the first place.

JPMorgan was just assessed 1.7 or 8 billion, billion dollars fine for not reporting Madoff. Was that justified?

Ms. WHITE. Again, that is a Department of Justice case. I am actually recused on JPMorgan cases, so I don't think I can appropriately comment on that.

Mr. PEARCE. I would like to make a comment that, so JPMorgan was fined a lot, and yet Perry Mecarpolis brought in to you, the SEC, in 2000—2001, 2005, he just reports it, and it wasn't like—and so we are talking budget. We are talking priorities, the same thing Mr. Capuano talked about. We are talking about the priorities. He said it took him literally minutes. They were trying to figure out how to pull away a customer, and he pulls up the prospectus for Madoff and says in minutes, so it doesn't require another billion dollars' worth of budget for more lawyers.

In minutes, he said, I realized it couldn't be true. He said it actually took me 4 hours to realize they were going to have to sell more trades than existed that whole year, and yet no one in the SEC, during a time that they are increasing their budget by triple and quadruple and more, no one took the 4 minutes to say, this can't be true. And in fact, it took multiple efforts to report Madoff and still they would just whisk it away. The same thing was going on with Mr. Stanford that—and one guy who used to work for the SEC was out stalling off the entire agency, a guy named Showbloom. He was out there advising, and he was able to stall you off for 20 years, and so how is a budget going to improve your performance when you have people like Mr. Barasch who says anytime the lower levels were pushing the investigation up on Stanford saying, no, we are not going to let at that go. How is it going to improve your performance to go 20 times your budget if you have a culture inside that turns and looks the other way?

Ms. WHITE. I don't think we have that culture inside at all. Obviously—

Mr. PEARCE. Then let me interrupt because you had people sitting in the room with Mr. Corzine as he allegedly, according to Ms. O'Brien says—Ms. O'Brien says that he gave the order for me to transfer $200 million. You had people sitting in the room, according to Mr. Robert Cook, his testimony in front of Congress says, yes, we were sitting in the room. We became alarmed at MF Global. We were sitting in the room and yet those things were allowed to occur.

So, you say that the culture doesn't exist, but it was able to go on for 20 years with Mr. Stanford. It was able to go on with Mr. Madoff for even longer. Why do you say that no culture exists that it looks—

Ms. WHITE. I don't think there is that culture, but I certainly would not dispute that those raise serious issues and challenges at the SEC, before my time, but hopefully as I continue, we will have addressed those issues. One of the things in our budget—

Mr. PEARCE. If I could take the last second or two. You have already heard two, Mr. Cleaver and you heard Mr. Lynch say nobody goes to jail. Nobody in the agency is ever responsible. You haven't fired anybody. You haven't terminated anybody for their failures in these cases. These 65 billion on Madoff and—in years and no one in the agency is ever responsible. You are hearing back and forth. Thank you, Mr. Chairman. You have been very gracious.

Chairman HENSARLING. Unless another Member walks into the room in the next 30 seconds, we will close the hearing. They better walk fast. If not, I would like to thank Chair White for her testimony today. I thank her for the seriousness with which she takes the congressional oversight process and for being accommodating with her schedule.

The Chair notes that some Members may have additional questions for this witness, which they may wish to submit in writing. Without objection, the hearing record will remain open for 5 legislative days for Members to submit written questions to this witness and to place her responses in the record. Also, without objection, Members will have 5 legislative days to submit extraneous materials to the Chair for inclusion in the record.

This hearing stands adjourned.

[Whereupon, at 1:00 p.m., the committee was adjourned.]

A P P E N D I X

April 29, 2014

Testimony on "Oversight of the SEC's Agenda, Operations and FY 2015 Budget Request"
by
Chair Mary Jo White
U.S. Securities and Exchange Commission

Before the
Committee on Financial Services
United States House of Representatives
April 29, 2014

Chairman Hensarling, Ranking Members Waters, and members of the Committee:

Thank you for inviting me to testify regarding the recent activities of the U.S. Securities and Exchange Commission (SEC), our fiscal year 2015 budget request, and our plans to continue to fulfill our broad, three-part mission: to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation.[1]

Investors and our markets need a strong, vigilant, and adequately-resourced SEC. Today, there are over 25,000 SEC registrants, including broker-dealers, investment advisers, clearing agents, transfer agents, credit rating agencies, exchanges, and others. From fiscal 2001 to fiscal 2014:

- trading volume in the equity markets more than doubled to a projected $71 trillion;
- in addition to dramatically increased volume, the complexities of financial products and the speed with which they are traded increased exponentially;
- assets under management of mutual funds grew by 131% to $14.8 trillion; and
- assets under management of investment advisers jumped almost 200% to $55 trillion.

During this time of unprecedented growth and transformation in our markets, the SEC also has been given significant new responsibilities for over-the-counter derivatives, private fund advisers, municipal advisors, crowdfunding portals, and more.

Since I first appeared before you last May, the SEC has accomplished a great deal. We adopted or proposed a substantial volume of mandated and other key rules. We aggressively enforced the securities laws, requiring for the first time admissions to hold certain wrongdoers more publicly accountable, and obtaining orders for penalties and disgorgement of $3.4 billion in fiscal 2013, the highest in the agency's history. We have taken a data-driven, disciplined approach to addressing complex market structure issues, launching a powerful new analytical tool called MIDAS (Market Information Data Analytics System) that enables us to analyze enormous amounts of trading data across markets almost instantaneously, and intensifying our

[1] The views expressed in this testimony are those of the Chair of the Securities and Exchange Commission and do not necessarily represent the views the full Commission, or any Commissioner.

review of issues such as high frequency trading and off-exchange trading venues. And we have continued to improve our efficiency and effectiveness by enhancing our technology, bringing in more experts, and deploying more risk-based analytics to allow us to do more with our resources, and to do so more quickly.

Within the last year, we have advanced a significant number of mandated rules and other initiatives across the wide range of our responsibilities as required by the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) and the Jumpstart Our Business Startups Act (JOBS Act), proposing or adopting rules concerning, among other things:

- The registration and regulation of nearly a thousand municipal advisors;
- The cross-border application of our security-based swap rules in the global swaps market;
- Lifting the ban on general solicitation in certain private offerings and proposing rules to provide important data and enhanced investor protections for this new market;
- Proprietary trading and investments in private funds by banks and their affiliates, under what is commonly called the "Volcker Rule";
- Increasing access to capital for smaller companies through securities-based crowdfunding;
- Programs required of broker-dealers, investment companies, and other regulated entities to address risks of identity theft;
- Further safeguarding the custody of customer funds and securities by broker-dealers;
- Updating and expanding the Regulation A exemption for raising capital;
- The retention of a certain amount of credit risk by securitizers of asset-backed securities;
- The removal of references to nationally recognized statistical rating organization ratings in several broker-dealer and investment company regulations;
- Enhancing risk management and other standards for the clearing agencies responsible for the safe and efficient transfer of trillions of dollars of securities each year; and
- Recordkeeping and reporting related to registrants' security-based swap activities.

In addition, we put forward rule proposals to strengthen and reform the structure of money market funds and require that certain key market participants have comprehensive policies and procedures to better insulate market infrastructure technological systems from vulnerabilities.

We also have taken steps to enhance the SEC's already strong enforcement program, including by modifying the longstanding "no admit/no deny" settlement protocol to require admissions in certain cases. While no admit/no deny settlements still make a great deal of sense in many situations, because admissions can achieve a greater measure of public accountability, they can bolster the public's confidence in the strength and credibility of law enforcement and in the integrity of our markets. Already, the Commission has resolved a number of cases with admissions, and my expectation is that there will be more such cases during 2014 and going forward as the new protocol continues to evolve and be applied. The Commission has continued to bring many significant enforcement cases across our entire regulatory spectrum, including actions against exchanges to ensure they operate fairly and in compliance with applicable rules, actions against investment advisers and broker-dealers for a variety of offenses, including taking undisclosed fees and conflicts of interest, and for disrupting the markets through automated trading, actions against auditors and others who serve as gatekeepers in our financial system, landmark insider trading cases, and additional cases against individuals and entities whose actions contributed to the financial crisis.

In the past year, the Commission also has made great strides to improve its technology, including through the development of tools that permit us to better monitor and protect the integrity of our markets and inform our exam program. In addition to MIDAS, the SEC's Quantitative Analytics Unit in our National Exam Program has developed groundbreaking new technology that allows our examiners to access and systematically analyze massive amounts of trading data from firms in a fraction of the time it has taken in years past. We are laying the technological foundation for unified access to SEC information, applications, and data across the agency, and are making a variety of other technological investments to enable us to fulfill our mission more efficiently and effectively.

We are continuing to address structural concerns about our complex, dispersed marketplace in a thorough and disciplined manner, drawing on data and other empirical evidence, and continuing our review of the SEC's public issuer disclosure rules. While the agency has made significant progress, there is much that the SEC still needs to accomplish. Completing key rulemakings and studies, including those mandated by Congress in the Dodd-Frank and JOBS Acts, remains among my top priorities. We also need to continue to increase our capacity to examine and oversee the entities under the SEC's jurisdiction, as well as hold accountable those that harm investors through securities law violations. We are at a critical point in the deployment of more sophisticated technology tools and platforms, and it is vital that we have the resources necessary to continue modernizing our IT systems and infrastructure.

In the testimony that follows, I will highlight the work of each of the SEC's Divisions and many of its Offices, including information on the SEC's progress implementing the Dodd-Frank Act and JOBS Act, and also discuss the SEC's fiscal year 2015 budget request.

Enforcement

A strong and effective enforcement program is at the heart of the SEC's efforts to protect investors and instill confidence in the integrity of the markets. As the agency's largest division, the Division of Enforcement (Enforcement) investigates and brings civil charges in federal

district court or in administrative proceedings based on violations of the federal securities laws. Successful enforcement actions result in sanctions that deter wrongdoing, protect investors, and result in penalties and the disgorgement of ill-gotten gains that can be returned to harmed investors.

In FY 2013, Enforcement continued to achieve significant results on behalf of investors, using its enhanced expertise to file tough enforcement actions that sent a strong deterrent message in an increasingly complex and global securities market. The SEC filed 686 enforcement actions in the fiscal year that ended in September 2013. The $3.4 billion in disgorgement and penalties ordered as a result of those actions is 10 percent greater than FY 2012 and 22 percent greater than FY 2011, when the SEC filed the most actions in agency history. Quantitative metrics alone, however, are not the proper yardstick of the measure of Enforcement's effectiveness. Enforcement considers the quality, breadth, and effect of the actions pursued.

Admissions Policy

As referenced above, in FY 2013 the SEC changed its long-standing settlement policy, and now requires admissions of misconduct in certain types of cases where heightened accountability and acceptance of responsibility by a defendant are appropriate and in the public interest. These types of cases include those involving particularly egregious conduct, where a large number of investors were harmed, where investors or the markets were placed at significant risk, where the conduct undermines or obstructs our investigative process, where an admission can send an important message to the market, or where the wrongdoer presents a particular future threat to investors or the markets. The SEC has settled a number of cases using this new protocol, including requiring, for example, a hedge fund manager to admit to misuse of more than one hundred million dollars of fund assets to pay personal taxes, and a global financial institution to admit to massive control failures that resulted in material financial misstatements. I expect that there will be more such cases in the coming year.

Market Structure / Exchanges / Broker-Dealers

To ensure fair trading and equal access to information in the securities markets, the SEC brought significant actions in the past year against stock exchanges, broker-dealers, and other market participants. Noteworthy cases included actions charging:

- Nasdaq in connection with its inadequate systems and decision-making during the Facebook IPO;

- CBOE with regulatory and compliance breakdowns, including its failure to enforce rules to prevent abusive short selling;

- the Chicago Stock Exchange with failing to detect and prevent violations of Regulation NMS by its member firms;

- Knight Capital Americas with having inadequate market access controls and violating Commission Rule 15c3-5 in connection with an automated trading problem that disrupted the markets;

- brokerage firm Biremis Corporation and two senior executives with failing to supervise overseas day traders who engaged repeatedly in a manipulative trading practice known as "layering"; and

- three brokerage subsidiaries and two former employees of ConvergEx Group with charging many institutional clients substantially higher amounts than disclosed for the execution of trading orders.

Insider Trading

Building on past successes, the SEC has continued to uncover hard-to-detect insider trading violations by a wide variety of market participants, including licensed brokers, sophisticated hedge fund managers, and overseas traders. These actions have exposed serious lapses by senior corporate insiders, board members, and other professionals who unlawfully tipped or traded on material nonpublic information.

Two recent examples of the SEC's efforts in this area include an action charging the managing clerk of a prominent law firm with tipping confidential information in advance of more than a dozen corporate transactions, and an action charging a former analyst at CR Intrinsic Investors with causing the hedge fund to trade based on inside information concerning a corporate acquisition and a technology company's quarterly earnings announcements. The SEC's filing against the CR Intrinsic analyst followed an historic insider trading settlement with CR Intrinsic and its affiliate, SAC Capital Advisors, which agreed last year to pay more than $600 million in disgorgement and civil penalties. The SEC also brought an administrative proceeding charging these firms' owner with failing to supervise senior portfolio managers and prevent their insider trading violations.

Financial Statement and Accounting Fraud

Enforcement continues to focus on expanding and strengthening the agency's efforts to identify securities law violations relating to the preparation of financial statements, issuer reporting and disclosure, and audit failures. For example, we recently charged five executives and finance professionals with falsifying financial statements in connection with a $150 million fraudulent bond offering by an international law firm, and an agricultural company and its top executives with conducting a massive accounting fraud in which they repeatedly reported fictitious revenues of approximately $239 million from their China operations.

Last fall, the staff formed the Financial Reporting and Audit Task Force, which is working to identify areas susceptible to fraudulent financial reporting through an on-going review of financial statement restatements and revisions, analysis of performance trends by industry, and the use of technology-based tools. As a result of the work of the Task Force, a number of new investigations and inquiries are underway, including matters focused on both

traditional and emerging financial fraud issues. And as part of the Commission's ongoing efforts to hold gatekeepers accountable for the important roles they play in the securities industry, Enforcement also launched a risk-based initiative, internally designated "Operation Broken Gate," to identify auditors who may have violated the federal securities laws or failed to comply with U.S. auditing standards during their audits and reviews of financial statements for publicly traded companies. Thus far, Operation Broken Gate's efforts have led to actions against five auditors and their affiliated firms, resulting in suspensions from the ability to audit public companies.

Investment Advisers

In FY 2013, the SEC filed 140 actions against investment advisers. Several of these actions resulted from risk-based investigations, which are proactive measures to identify misconduct at an early stage so that timely action can be taken and investor losses minimized. These cases hold to account those finance professionals who abuse their position of trust by engaging in fraudulent conduct, misrepresent investment returns, or otherwise breach their fiduciary duty to their clients. The SEC also filed multiple actions arising from an initiative to identify investment advisers who lacked effective compliance programs and an initiative based on the detection of abnormal performance returns by hedge funds, as well as a number of actions involving violations of the custody rule.

FCPA

The Commission continues to pursue companies that bribe foreign officials to obtain or retain business, and over the last two-and-a-half years, we have obtained over $679 million in monetary relief from FCPA actions. For example, the SEC has brought FCPA actions charging a company with a bribe scheme involving business with Aluminum Bahrain; another company with various bribes and improper payments in the Middle East and Africa and violations of U.S. sanctions and export control laws involving Cuba, Iran, Syria, and Sudan; and a third company with bribe schemes involving business with the National Iranian Oil Company. The Commission is also focused on holding individuals accountable, with ongoing FCPA-related litigation against former executives of a number of corporations.

Municipal Securities

The Commission has filed a number of significant actions in the area of municipal securities and public pensions, including actions charging the City of Harrisburg with making materially misleading statements in the secondary market; the State of Illinois with misleading investors about the adequacy of its plan to fund its pension obligations; and the City of Miami with misrepresenting its financial health and for violating a prior cease-and-desist order for similar conduct. In addition, Enforcement launched a novel initiative intended to encourage self-reporting and promote improved disclosure and transparency by municipal issuers and improved compliance by underwriters.

Office of the Whistleblower

The SEC's whistleblower program, established pursuant to the Dodd-Frank Act, has significantly contributed to the SEC's receiving a substantial volume of high-quality information about potential securities law violations. The program has allowed our investigative staff to work more efficiently and permitted us to better deploy agency resources. As set forth in the SEC's Office of the Whistleblower Annual Report for 2013, the Commission received 3,238 tips from whistleblowers in the U.S. and 55 other countries. In September 2013, the Commission made its largest-ever award (over $14 million) to a whistleblower whose information led to an SEC enforcement action that recovered substantial investor funds.

Inspection and Examination Program

The Office of Compliance Inspections and Examinations (OCIE) is responsible for the Commission's examination and inspection program. OCIE examines securities firms registered with the Commission, including broker-dealers, municipal securities dealers, self-regulatory organizations (SROs), clearing agencies, transfer agents, investment advisers, and investment companies. Additionally, the Dodd-Frank Act increased OCIE's responsibilities to include examinations of, among others, municipal advisors, investment advisers to certain private funds, security-based swap dealers, security-based swap data repositories, major security-based swap participants, and securities-based swap execution facilities. The examination program plays a critical role in supporting and enhancing compliance within the securities industry, which in turn also helps to protect investors and the securities markets generally.

OCIE conducts examinations across the country through its National Examination Program (NEP) and has adopted a risk-based approach for selecting which firms, areas, and issues to examine. In FY 2013, examiners conducted approximately 1,615 examinations, including 438 broker-dealers, 964 investment advisers, 99 investment company complexes, 42 transfer agents, 17 clearing agencies, and five municipal advisors. The staff also conducted 50 market oversight program inspections.

Never-Before Examined Advisers Initiative and Presence Exam Initiative

In 2014, the NEP launched an initiative to engage with the roughly 20% of investment advisers that have been registered for three years or more, but have never been examined (the never-before examined initiative). This initiative includes both risk-assessment and focused reviews. The risk-assessment approach is designed to obtain a better understanding of a registrant and may include a high-level review of an adviser's overall business activities. The focused review approach includes conducting comprehensive, risk-based examinations of one or more higher-risk areas, which could include, among others, the compliance program, portfolio management, or safety of client assets.

In addition, since the effective date of the Dodd-Frank Act, approximately 1,800 advisers to hedge funds and private equity funds have registered with the SEC for the first time. Throughout 2013 and continuing into 2014, Commission staff has launched an initiative to conduct focused, risk-based exams of newly registered private fund advisers. These "presence"

examinations are more streamlined than typical examinations, and are designed both to engage with the new registrants to inform them of their obligations as registered entities and to permit the Commission to examine a higher percentage of new registrants. Some of the common deficiencies from the examinations of these advisers that the staff has identified included: misallocating fees and expenses; charging improper fees to portfolio companies or the funds they manage; disclosing fee monitoring inadequately; and using bogus service providers to charge false fees in order to kick back part of the fee to the adviser. Ongoing presence exams and continued identification of these types of deficiencies inform the NEP's analysis of new and emerging risks, OCIE is on track to complete its goal of examining 25% of these newly registered advisers by the end of 2014. It should be noted that many of the investors in these funds are public and private pension funds as well as charities, academic institutions, and foundations.

Large Firm Monitoring

The Large Firm Monitoring Program (LFM) also enhances the NEP's risk-based examination strategy. The LFM focuses on certain large and complex firms that could pose significant risk to the various markets and to their customers, due to their size, complexity, and connectivity with other large firms and financial institutions. The LFM coordinates closely with other divisions to monitor and examine these large firms and provide regulatory scrutiny, particularly in areas of financial and operational importance.

Innovative Data Analytics and Technology

Over the past several years, OCIE has recruited industry experts to enhance the NEP's technology and data analytics and thus advance its risk-based examination approach. In 2014, OCIE introduced the National Exam Analytics Tool (NEAT), which empowers examiners across the NEP to access and systematically analyze years of trading data in minutes. Such reviews previously were limited to months of trading data and took examiners weeks or more to complete.

Additionally, in FY 2013 OCIE's Risk Analysis Examination (RAE) initiative – which leverages technology to conduct cross-firm review involving large quantities of data – collected and analyzed millions of trading records from over 500 firms. Using this data, the RAE team identified a wide range of problematic behavior including, among other things: unsuitable recommendations, misrepresentations, inadequate supervision, churning, and reverse churning.

Enhanced technology will also be used to enhance the NEP's Anti-Money Laundering (AML) reviews. Rather than a simple verification of an anti-money-laundering program's existence, examiners can now perform nuanced assessments of the quality of an AML program. For example, examiners will begin using complex data analytics and pattern recognition to test the reasonableness of a firm's suspicious activity and monitoring programs, which could include, among other things, evaluating the parameters of a firm's monitoring tools to determine the firm's ability to detect patterns of suspicious customer activity.

The Technology Controls Program, which became part of OCIE in 2014, is currently

charged with conducting inspections of the exchanges and certain other SEC registered entities including clearing agencies and FINRA. These examinations review a wide array of issues such as, for example, information security and networking, physical security, contingency planning, and systems development methodology.

The NEP also has indicated it will focus on various technology-related trading issues in 2014, including algorithmic and high frequency trading, information leakage, and cyber security, among other things.

Issuer Disclosure and Capital Formation

The Division of Corporation Finance (Corporation Finance) regularly and systematically reviews the disclosures and financial statements of reporting companies as required by the Sarbanes-Oxley Act of 2002, and selectively reviews documents that companies file when they engage in public offerings, business combination transactions, and proxy solicitations to ensure that investors have access to material information to accurately inform their investment and voting decisions. During fiscal year 2013, Corporation Finance staff reviewed the annual and periodic reports of over 4,500 companies and, in addition to other selective reviews of transactional filings, almost 600 registration statements by new issuers. Corporation Finance also maintains specialized offices with legal and accounting experts that support filing reviews, undertake reviews of specialized filings, provide interpretive guidance on rules and regulations, participate in Commission rulemaking projects, provide specialized expertise in enforcement matters, evaluate the outcomes of our filing review program and conduct ongoing assessments to evaluate the effectiveness of our internal supervisory controls. Below is an overview of several key Corporation Finance initiatives.

Dodd-Frank Act Rulemakings

Since its passage, the Commission has adopted Dodd-Frank Act rules regarding accredited investors, say-on-pay, asset-backed securities, compensation committee listing standards and disclosure, and conflict minerals. Most recently, the Commission adopted rules regarding disqualifications for felons and other bad actors and proposed a rule regarding the disclosure of the ratio of the median of the annual total compensation of all employees to the annual total compensation of the chief executive officer. Corporation Finance, along with other Commission staff and the Commission continue to work to implement provisions of the Dodd-Frank Act relating to asset-backed securities, executive compensation matters, credit risk retention in asset-backed securities and payments by resource extraction issuers. Finally, Corporation Finance and other Commission staff are currently conducting the review of the accredited investor definition as it relates to natural persons, as mandated by Section 413 of the Dodd-Frank Act.

JOBS Act Rulemakings

Corporation Finance is responsible for several Commission mandates under the JOBS Act, which rule writing teams in the Division have been working to complete.

- In July 2013, pursuant to Title II of the JOBS Act, the Commission adopted the final rules to allow general solicitation and general advertising for offers and sales made under Rule 506, provided that all securities purchasers are accredited investors and issuers take reasonable steps to verify that purchasers are accredited investors. The rules became effective in September 2013. In conjunction with the adoption of these final rules, the Commission also issued a rule proposal that would enhance the Commission's ability to assess the development of market practices in Rule 506 offerings and that would address concerns that may arise with the use of general solicitation by issuers in these types of offerings.

- In October 2013, as mandated by Title III of the JOBS Act, the Commission proposed rules to implement the new exemption for the offer and sale of securities through crowdfunding, an evolving method to raise capital using the Internet.

- In December 2013, as mandated by Title IV of the JOBS Aet, the Commission proposed rules that would build upon Regulation A, which is an existing exemption from registration for small offerings of securities, to enable companies to offer and sell up to \$50 million of securities within a 12-month period.

- Corporation Finance also is developing the rulemaking mandated by Titles V and VI with respect to the changes to the thresholds for registration and deregistration under Section 12(g) of the Exchange Act.

Study and Review of Public Company Disclosure Requirements

In addition to requiring the Commission to conduct rulemakings, the JOBS Act required that several studies be conducted. Beyond those completed in prior years, in December 2013 SEC staff submitted to Congress a report that reviewed Regulation S-K to determine how it may be modernized, made more effective and simplified to reduce the costs and other burdens for emerging growth companies.

Following the issuance of the report, Corporation Finance has been leading the SEC staff's efforts to develop specific recommendations for updating the Regulation S-K rules that specify what a company must disclose in its filings. The staff plans to seek input from a broad range of companies, investors, and other market participants on how the Commission might update and enhance its diselosure rules and filing requirements to make them more meaningful for investors. In addition, SEC staff is coordinating with the Financial Accounting Standards Board to identify ways to improve the effectiveness of disclosures in corporate financial statements and to minimize duplication with other existing disclosure requirements.

Trading and Markets

The Division of Trading and Markets (Trading and Markets) supervises the major participants in the U.S. securities markets including securities exchanges, broker-dealers, clearing agencies, transfer agents, the Financial Industry Regulatory Authority (FINRA), security futures product exchanges, and securities information processors. Trading and Markets also

works closely with the Office of Credit Ratings on rulemaking efforts to implement areas of the Dodd-Frank Act regarding the supervision of nationally recognized statistical rating organizations (NRSROs) and with the Office of Municipal Securities to supervise the Municipal Securities Rulemaking Board (MSRB) and municipal advisors.

Trading and Markets is also continuing significant rulemaking efforts to implement other key areas of the Dodd-Frank Act and the JOBS Act. Additionally, Trading and Markets is responsible for more than 30 separate rulemaking initiatives and studies under the two statutes, including a number that upon completion will create new ongoing supervisory responsibilities. Within the SEC, the Division is also leading significant interagency projects mandated by the Dodd-Frank Act, including the designation of systemically important non-bank financial entities and financial market utilities under the auspices of the Financial Stability Oversight Council (FSOC) and, in conjunction with the Board of Governors of the Federal Reserve (FRB) and the Federal Deposit Insurance Corporation (FDIC), mechanisms for the orderly liquidation of certain large financial companies, including certain large broker-dealers under the new liquidation authority established by the Dodd-Frank Act.

OTC Derivatives

Trading and Markets has continued to engage in rulemaking to establish a new oversight regime for the OTC derivatives marketplace. To date, the Commission has proposed all of the core rules required by Title VII of the Dodd-Frank Act, adopted a number of final rules and interpretations, provided a "roadmap" for implementation of Title VII, and taken other actions to provide legal certainty to market participants during the implementation process. Our most recent efforts include proposing rules relating to books and records and reporting requirements for security-based swap dealers and major security-based swap participants (April 2014) and rules to enhance the oversight of clearing agencies that are deemed to be systemically important or that are involved in complex transactions, such as security-based swaps (March 2014). The staff continues to work to develop recommendations for final rules required by Title VII.

Review of Equity Market Structure

The Commission's continued focus on equity market structure was enhanced by the roll-out in October 2013 of its equity market structure website. The website is intended to promote a market-wide dialogue and fuller empirical understanding of the equity markets. It serves as a central location for SEC staff to publicly share evolving data, research, and analysis.

- The website includes detailed analyses of trading data by the Division's Office of Analytics and Research (OAR). OAR has implemented a Market Information Data Analytics System (MIDAS) to collect and analyze market data from both the public consolidated data feeds and the "proprietary" data feeds provided by the exchanges to their customers. OAR has analyzed MIDAS data to address key issues raised by the current market structure, including trading speed, quote lifetimes, trade-to-order volume ratios, hidden volume ratios, and odd-lot rates.

- The website also includes the first two of an ongoing series of research papers prepared by the Division of Economic and Risk Analysis (DERA). These papers use order audit trail data to provide basic descriptive statistics about off-exchange trading venues, which currently account for more than 1/3 of volume in exchange-listed equities.

- The website also includes reviews of economic research on equity market structure authored by academics, regulators, and others. These reviews summarize papers that analyze recent data (2007 and later) relating to a variety of financial markets and products, both in the U.S. and globally.

The equity market structure website reflects the Commission's data-driven approach to a wide range of important and pressing market structure concerns. We particularly are focusing on whether market structure rules and regulatory arrangements continue to meet their objectives of investor protection, fair and orderly markets, and capital formation. Continued evaluation and, as appropriate, advancing initiatives to address market structure concerns is a priority for the Commission in 2014.

Strengthening Critical Market Infrastructure

Recent market events demonstrate the need to bolster resilience throughout critical market systems. In particular, after the August 2013 interruption in the trading of Nasdaq-listed securities, the equities and options exchanges, FINRA, and the clearing corporations have been working together with other market participants to identify a series of concrete measures designed to address specific areas where robustness and resilience of market systems could be improved. They have provided the Commission with their actions plans for addressing these issues and are working to implement them, including through several measures that should be completed in the near future.

In addition to these initiatives, the Commission continues its efforts to foster robust market infrastructure and reduce the number of systems disruptions through a focus on systems compliance and integrity. For example, in March 2013, the Commission proposed Regulation SCI, which, among other things, would require that exchanges and other key market players maintain policies and procedures reasonably designed to meet certain technology standards and ensure compliance with relevant laws and rules, and that these entities take appropriate corrective action if problems occur. Commission staff is working to prepare a recommendation for the Commission's consideration with respect to the adoption of Regulation SCI this year. In addition, in March 2014, the Commission conducted a Cybersecurity Roundtable, which addressed the cybersecurity landscape and the cybersecurity issues faced by financial market participants today.

Tick Size Pilot for Smaller Companies

In 2014, the Commission expects to continue its evaluation of decimalization rules that allow (but do not require) market participants to quote security prices in increments as low as a penny and its impact on smaller companies. Since 2001 when decimalization was first

implemented, the structure of the market, the nature of trading and the roles of market participants have changed significantly.

The Commission initiated this recent evaluation on decimalization's impact on smaller companies in 2012 after the passage of Section 106(b) of the JOBS Act, which required the Commission to conduct a study and report to Congress on how decimalization affected the number of initial public offerings and the trading of small and middle capitalization company securities. The Commission submitted the study to Congress on July 20, 2012.

Thereafter, in February 2013, the staff held a three-panel Decimalization Roundtable to gather industry and the public's views on the impact of decimalization. There was broad support across the panels for the Commission to implement a pilot that would widen ticks for small and middle capitalization companies so that data could be generated, though some were concerned about the potential costs of wider ticks.

Since the roundtable, the staff has worked on developing a pilot along carefully defined parameters that would widen the quoting and trading increments and test, among other things, whether a change like this improves liquidity and market quality. A pilot program would allow the Commission to gather data so that analysis could be conducted on the impact of wider quoting and trading increments on liquidity and trading.

The Volcker Rule

On December 10, 2013, the SEC, the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, the Office of the Comptroller of the Currency, and the Commodities Futures Trading Commission adopted a final rule under the Bank Holding Company Act to implement Section 619 of the Dodd-Frank Act, generally referred to as the "Volcker Rule." The final rule applies to "banking entities," which are generally defined to include insured depository institutions and their affiliates.

Consistent with Section 619, the final rule generally prohibits banking entities from engaging in proprietary trading and limits their ability to sponsor or invest in hedge funds and private equity funds – termed "covered funds." At the same time, the final rule preserves certain essential financial services that are necessary to capital raising and the healthy functioning of our securities markets, such as underwriting, risk-mitigating, hedging, and market making. Further, the final rule helps preserve banking entities' traditional asset management and advisory businesses by allowing banking entities to continue conducting certain activities in connection with organizing and offering a covered fund.

Banking entities generally have until July 21, 2015 to bring their activities and investments into conformance with the final rule, with additional time allotted for certain collateralized loan obligations. The largest banking entities, however, become subject to a metrics recordkeeping and reporting requirement this summer. Commission staff continues to coordinate with staffs on implementation of the final rule, including responses to interpretive questions, an approach to metrics data submission, compliance and enforcement.

Investment Management Oversight and Rulemaking

The SEC's Division of Investment Management (Investment Management) primarily administers the SEC's regulatory and disclosure-review functions for mutual funds, other investment companies, and investment advisers. As part of these functions, the Commission and the Division oversee funds with a combined $15 trillion in assets under management and registered investment advisers with over $61 trillion in assets under management.

Money Market Funds

In June 2013, the Commission proposed additional money market fund reforms. These reforms included two alternative proposals. One is a floating net asset value (NAV) for prime institutional money market funds – the type of funds that experienced the most significant redemptions during the financial crisis. The other proposal would provide for the use of liquidity fees and redemption gates in times of stress. These proposals could be adopted alone or together, and are designed to lessen money market funds' susceptibility to runs, improve their ability to manage and mitigate potential contagion from high levels of redemptions, and increase the transparency of their risks while preserving many of the benefits of money market funds for investors and the short-term funding markets. Staff has reviewed closely the more than 1,400 letters that were submitted, and adopting a final rule in this area is a priority for the Commission in 2014.

Private Fund Adviser Regulation

Title IV of the Dodd-Frank Act directed the Commission to implement a number of provisions designed to enhance the oversight of private fund advisers, including registration of advisers to hedge funds, private equity funds and other private funds that were previously exempt from SEC registration. The SEC's implementation of required rulemaking under Title IV is complete. As a result of the Dodd-Frank Act and the SEC's new rules, the number of SEC-registered private fund advisers has increased by more than 50% to 4,153 advisers. Even after accounting for the shift of mid-sized advisers to state registration pursuant to the Dodd-Frank Act, the total amount of assets managed by SEC-registered advisers has increased significantly from $43.8 trillion in April 2011 to $55.7 trillion in March 2014.

For private fund advisers required to be registered with the Commission, pursuant to the Dodd-Frank Act, the Commission adopted confidential systemic risk reporting requirements on Form PF in October 2011 to assist the Financial Stability Oversight Council (FSOC) in systemic risk oversight. As required by the Dodd-Frank Act, Form PF was designed in consultation with the FSOC, and the data filed on Form PF has been made available to the Office of Financial Research within the Department of the Treasury. To date, approximately 2,400 investment advisers have filed reports on approximately 7,000 hedge funds, 66 liquidity funds and 6,000 private equity funds. As required by the Dodd-Frank Act, Commission staff transmitted a report to Congress last year on the Commission's use of Form PF data.

We recognize that the Dodd-Frank Act mandates, for the first time, registration, reporting and compliance responsibilities for many private fund advisers. During the past year,

Commission staff has consulted with numerous private fund industry groups, investors and investment advisers regarding their concerns and questions. These outreach efforts have culminated in the publication of several guidance and interpretative updates by Commission staff on issues for private fund advisers, including one from August 2013 on the custody of private stock certificates.

Risk Monitoring

Pursuant to Section 965 of the Dodd-Frank Act, Investment Management has established a new risk and examinations office (REO). REO monitors trends in the asset management industry and carries out the Division's inspection and examination program. REO is also assisting in a larger Commission-wide initiative to obtain and analyze data consistent with market trends and operational integrity issues, inform policy and rulemaking, and assist the staff in examinations of registrants. Staff from REO and other SEC staff have met with the senior management of several large asset management firms as part of the staff's ongoing outreach efforts.

As part of our continuing efforts to monitor risks, Investment Management staff and other Commission staff are considering ways to improve the information we receive about mutual funds, closed-end funds and exchange-traded funds (ETFs). To that end, staff is actively engaged in developing a recommendation to enhance and modernize the information that funds are reporting to the Commission to give us more timely and useful information about fund operations and portfolio holdings, similar to the information we currently receive on money market fund portfolio holdings. In pursuing this initiative, the goal is to not only improve the quality of the data we receive and to inform our efforts to monitor risk, but also to reduce unnecessary burdens and eliminate unnecessary filings.

Target Date Funds

On April 3, 2014, the Commission issued a release reopening the period for public comment on proposed rule amendments concerning target date fund names and marketing. The release requested comment on the Investor Advisory Committee's recommendation that the Commission develop a glide path illustration for target date funds that is based on a standardized measure of fund risk as a replacement for, or supplement to, the asset allocation glide path illustration the Commission proposed in 2010.

Economic Analysis, Risk Assessment, and Data Analytics

The Division of Economic and Risk Analysis (DERA, previously, the Division of Risk, Strategy, and Financial Innovation) participates in a broad range of Commission activities, providing key technical expertise across a wide variety of matters. The Division has grown significantly since its inception, having more than doubled since its creation in late 2009. A further major expansion is anticipated in fiscal year 2014, with plans to hire 45 additional staff, including additional financial economists and other experts, who will strengthen the already significant Divisional support for rulemaking and policy development; enforcement and inspection activities; and data analytics and processing.

Economic Analysis

DERA plays a central role in the development of Commission rules and policy initiatives. Staff, including Ph.D. financial economists with sophisticated knowledge of the financial markets, provides extensive technical advice and input into a wide range of policy initiatives and directly participate in the rulemaking process.

Over the past year, staff has focused on performing complex data analyses to facilitate rule development. For example, DERA provided information regarding the current approaches to capital raising in the United States to inform rules mandated by the JOBS Act, including the proposal to permit equity-based crowdfunding, the proposal for a new small issue exemption under Section 3(b) of the Securities Act, and the elimination of the ban on general solicitation. DERA is an active participant in a cross-agency group that is monitoring the effect of JOBS Act implementation, including the incidence and level of various types of offerings. Division staff has also continued its examination of the current state of the security-based swap market, providing data analyses of activities and entities participating in that market.

DERA economists also have authored a range of additional data-driven analyses of economic issues. This work, which is available to the public, demonstrates the expertise of DERA's staff, and is intended to inform the public and the Commission on important aspects of the financial markets. For example, DERA staff authored papers that provide detailed data regarding the current state of the private offering market and contributed original and previously unavailable analyses of off-exchange trading of National Market System stocks to the SEC's new Market Structure website.

Risk Assessment and Litigation Support

DERA provides ongoing risk assessment and data analytic support to a range of Commission activities. These activities are intended to help focus the agency's limited resources on the highest risk areas in examinations, registrant reviews, and litigation. For example, DERA has worked to assist OCIE to more efficiently allocate its resources through its work on the broker-dealer risk assessment program, which aids in prioritizing inspections according to risk scores assigned to registrants.

In addition, over the past year, the SEC has been working to enhance the system for handling tips, complaints, and referrals (TCR), focusing on the approach the SEC takes towards gathering, storing, and querying the TCR data. DERA provided analytical and technical leadership throughout this ongoing and important project.

DERA also provides ongoing expert support to the Division of Enforcement, and its work directly contributed to a number of successful investigations. For example, last year, economists assisted in several market manipulation investigations, creating algorithms to analyze the order and transaction files of high-speed traders and quantify the extent of suspicious trading. Staff also provided expert testimony to assist with the freezing of assets in a $150 million fraud

scheme, and also aided Federal prosecutors in charging insider trading by analyzing evidence of materiality.

Information Technology and Data Analytics

DERA also is central to the SEC's ongoing support of the production and use of structured data. The Division is both a consumer of structured data drawn from multiple sources – relying on this data to perform sophisticated analyses to support rulemakings and risk assessment activities – and a leader in on-going efforts to enhance the availability and usefulness of data collected by the Commission. For example, as part of the rulewriting process, staff regularly assists other divisions and offices with structuring forms to facilitate data collection from filers. DERA staff is also continuously engaged in outreach to the filer community, particularly those who file in XBRL and those vendors who support the filers, to educate and assist with any questions.[2]

In addition, over the past year, the Commission has devoted considerable resources to DERA's launch of the Quantitative Research Analytical Data Support (QRADS) program in September 2013. This ground-breaking initiative enables the structuring and processing of vast quantities of financial market data in order to make it broadly accessible to users across the agency. The program is intended to support Commission staff's use of high-quality financial market data and robust analytical processes relevant to a variety of risk assessment programs and economic analyses. Importantly, it will increase the Commission's ability to link important financial market information originating from a wide variety of sources, allowing staff to make connections across markets and entities not previously possible.

Office of Credit Ratings

The Office of Credit Ratings (OCR) is charged with administering the rules of the Commission with respect to NRSROs, promoting accuracy and enhanced disclosures in credit ratings issued by NRSROs, and helping to ensure that credit ratings are not unduly influenced by conflicts of interest. The Dodd-Frank Act requires OCR to conduct an examination of each NRSRO at least annually and the Commission to make available to the public an annual report summarizing the essential exam findings. The third annual report of the staff's examinations was published in December 2013. The staff will continue to focus on completing the annual examinations of each NRSRO, including follow-up from prior examinations, to promote compliance with statutory and Commission requirements. OCR also has established "colleges" of regulators to provide a framework for information exchange and collaboration with foreign counterparts regarding large, globally-active credit rating agencies.

Under the Dodd-Frank Act, the Commission is required to undertake a number of rulemakings intended to strengthen the integrity of credit rating by, among other things, improving their transparency. These rules are a priority for the Commission in 2014. The Dodd-

[2] *See* http://xbrl.sec.gov/. This page, in addition to providing extensive information regarding filing in XBRL, also provides contact information to permit the public to reach directly out to staff in DERA who can assist with questions.

Frank Act also mandated three studies relating to credit rating agencies, two of which were published in 2012, and one of which was published in 2013.

Additionally, the Dodd-Frank Act required the Commission to review its regulations that require use of credit ratings as an assessment of the credit-worthiness of a security and undertake rulemakings to remove these references and replace them with other standards of credit-worthiness as the Commission determines to be appropriate. In 2013, the Commission adopted rules to remove references to credit ratings applicable to investment companies and broker-dealers.

Office of the Investor Advocate

Section 915 of the Dodd-Frank Act required the SEC to establish an Office of the Investor Advocate to assist retail investors in resolving significant problems they may have with the Commission or with SROs. The Investor Advocate also will analyze the potential impact on investors from proposed Commission regulations or SRO rules; identify problems that investors have with financial service providers and investment products; and propose to Congress any legislative, administrative, or personnel changes that may be appropriate to promote the interests of investors.

The first Investor Advocate, appointed in February of this year, is in the process of hiring staff, including an Ombudsman as required by Section 919D of the Dodd-Frank Act. The Office of the Investor Advocate will submit its first report to Congress not later than June 30, and the report will set forth the objectives of the Investor Advocate for the upcoming fiscal year. The Office also will provide staff support to the Investor Advisory Committee that was established pursuant to Section 911 of the Dodd-Frank Act.

Office of Minority and Women Inclusion

The Office of Minority and Women Inclusion (OMWI) is responsible for all matters related to diversity in management, employment, and business activities at the SEC. OMWI is responsible for developing standards for equal employment opportunity and diversity of the workforce and senior management of the SEC, the increased participation of minority-owned and women-owned businesses in the SEC's programs and contracts, and assessing the diversity policies and practices of entities regulated by the SEC. OMWI also is required to submit an annual report to Congress on specific actions taken by the agency and OMWI related to minority and women contracting awards, outreach programs, and employee and contractor hiring challenges. Its most recent report was submitted to Congress on April 18, 2014.

SEC Diversity Efforts

In fiscal year 2013, OMWI initiated an enhanced national outreach and engagement program with several minority- and women-serving organizations and institutions, with the aim of developing strategic relationships to attract a diverse talent pool for current and future employment opportunities at all levels of the agency. OMWI also continued to collaborate with leading organizations focused on developing employment opportunities for minorities and

women in the financial services industry. There remains more that can be done with respect to diversity in our hiring, however, particularly for minority and women attorneys and accountants, and for women compliance examiners. In FY 2014, OMWI will continue to engage SEC hiring officials, minority and women professional organizations representing securities and financial services industry participants, and educational institutions to develop tailored recruitment strategies for minorities and women in these occupations and fields.

SEC Programs and Contracts

The OMWI Director is required to advise the Commission on the impact of the SEC's policies and regulations on minority-owned and women-owned businesses. Of the total $323.5 million the SEC awarded to contractors in FY 2013, $93.0 million (28.7%) was awarded to minority-owned and women-owned businesses, an increase over the $78 million (20.6%) awarded to minority-owned and women-owned businesses in FY 2012. OMWI also continues to move forward with respect to policies relating to contracting. OMWI, working with the SEC's Office of Acquisitions and the Office of the General Counsel, developed a contract standard for SEC services contracts relating to the obligation of contractors to ensure the fair inclusion of women and minorities in their workforces. The contract standard will be incorporated in all SEC contracts for services that exceed the Federal Acquisition Regulation Simplified Acquisition Threshold amount (currently $150,000). OMWI is finalizing the contract standard for formal agency review and approval.

Practices of Regulated Entities

During fiscal year 2013, the OMWI Directors of the Securities and Exchange Commission, Federal Deposit Insurance Corporation, National Credit Union Administration, Federal Reserve Board, Consumer Finance Protection Bureau, and the Office of the Comptroller of the Currency (the Agencies) collaborated to develop a *Proposed Interagency Policy Statement Establishing Joint Standards for Assessing the Diversity Policies and Practices of Entities Regulated by the Agencies*. The joint standards are intended to promote transparency and awareness of diversity policies and practices within regulated entities and provide guidance for assessing these policies and practices. The joint standards cover four key areas: 1) organizational commitment to diversity and inclusion; 2) workforce profile and employment practices; 3) procurement and business practices and supplier diversity, and 4) practices to promote transparency of organizational diversity and inclusion.

The Policy Statement was published in the Federal Register on October 25, 2013 and was available for a 60 day comment period. In an effort to ensure adequate time for interested parties to share their views, the comment period was extended for an additional 45 days and closed on February 7, 2014. Staff of the agencies are now in the process of reviewing the more than 200 comments received.

Office of Municipal Securities

The Office of Municipal Securities (OMS) administers the Commission's rules on practices of broker-dealers, municipal advisors, investors, and issuers with respect to municipal

securities and to coordinate with the MSRB on rulemaking and enforcement actions. OMS advises the Commission and other SEC offices on policy matters, enforcement, current market issues, and other issues affecting the municipal securities market. OMS also serves as the Commission's liaison to the MSRB, FINRA, the IRS Office of Tax-Exempt Bonds, and various industry groups and regulators on municipal securities issues.

In September 2013, pursuant to Section 975 of the Dodd-Frank Act, the Commission issued final rules for the registration of "municipal advisors." The final rules provide guidance on the statutory definition of the term "municipal advisor," the statutory exclusions from that definition, and certain additional regulatory exemptions. The new registration requirements and regulatory standards are intended to mitigate some of the problems observed with the conduct of some municipal advisors, including "pay to play" practices, undisclosed conflicts of interest, advice rendered by financial advisors without adequate training or qualifications, and failure to place the duty of loyalty to their clients ahead of their own interests. Compliance with the final rules will be required on July 1, 2014, with a phased-in compliance period for registration under the final forms beginning on that day and ending on October 31, 2014.

Over the next year, OMS expects to devote significant attention to implementing these final rules, and providing ongoing legal advice and technical support to the Enforcement Division on enforcement matters in the municipal securities area. Further, OMS also will continue to monitor current issues in the municipal securities market (such as pension disclosure, accounting, and municipal bankruptcy issues) and to assist in considering further recommendations to the Commision with respect to disclosure, market structure, and price transparency in the municipal securities markets.

Office of International Affairs

The Office of International Affairs (OIA) advances international enforcement and supervisory cooperation, supports the SEC's mission through promoting high quality regulatory standards worldwide, and conducts technical assistance programs to strengthen investor protection and regulatory infrastructure globally.

OIA cooperates with foreign counterparts to enable our Enforcement Division to obtain information and evidence located abroad for use in investigations and litigation and to assist the Division in tracing, freezing, and repatriating proceeds of fraud outside the United States. Working with Enforcement, OIA also assists foreign securities regulators with their cases, as assisting foreign counterparts enhances the SEC's ability to obtain reciprocal cooperation from those foreign authorities. OIA partners with Commission staff in other divisions and offices conducting on-site examinations of foreign-domiciled registrants and addressing cross-border registration issues; facilitates cooperation between the Commission and its counterparts in the oversight of globally active entities; and negotiates supervisory memoranda of understanding on behalf of the Commission with foreign regulators.

In addition, OIA develops strategy for and conducts internal coordination of the SEC's engagement in multilateral organizations such as such as the International Organization of Securities Commissions (IOSCO) and Financial Stability Board (FSB), among others, as well as

for the Commission's bilateral cross-border engagements, such as the US-EU Financial Markets Regulatory Dialogue and US-China Strategic and Economic Dialogue. This past year, SEC staff led or participated in a wide array of international policy workstreams, including reforms related to the OTC derivatives markets, financial market infrastructures, and financial bencbmarks. OIA also coordinated the SEC's participation in systemic risk workstreams in IOSCO and the FSB, as well with regard to the global Legal Entity Identifier system for effectively identifying parties to financial transactions.

In addition, OIA, together with other divisions, analyzes the potential impact of SEC rules and actions on foreign market participants active in U.S. markets and on the cross-border activities of U.S. issuers and financial service providers and of foreign regulators' actions on U.S. market participants and the U.S. markets.

OIA also employs technical assistance programs designed to promote the development of high quality regulatory standards. During fiscal year 2013, OIA held four major international institutes in Washington, D.C. covering market development, enforcement, examinations, and anti-corruption. OIA also provided training in regional and bilateral programs on a wide array of topics, such as regulation and supervision of algorithmic trading, anti-money laundering, and risk-based supervision.

Office of the Chief Accountant

The Commission's Office of the Chief Accountant, which serves as the principal advisor to the Commission on accounting and auditing matters, oversees the Financial Accounting Standards Board's (FASB) process for setting accounting standards for public companies, and the Public Company Accounting Oversight Board (PCAOB), which oversees the audits of public companies. The Commission also plays an important role in connection with International Financial Reporting Standards (IFRS), which foreign private issuers can use in their filings with the Commission, including through interaction with the International Accounting Standards Board (IASB) and the Commission's participation on the IFRS Foundation Monitoring Board.

Commission staff continued in fiscal year 2013 to monitor and support the activities of the FASB and the IASB as they made progress in their efforts to converge U.S. GAAP and IFRS. Commission staff reviews these and all major standard-setting and interpretive efforts of the FASB and the IASB to ensure the appropriateness of accounting standards used by issuers in U.S. markets.

The Commission's oversight over the PCAOB includes appointing board members, approving PCAOB rules, reviewing PCAOB disciplinary actions and disputes regarding inspection reports, and approving the PCAOB's budget and accounting support fee. The PCAOB has an active standard-setting agenda, including projects to update numerous standards that address important aspects of the performance of audits and a project to consider changes to the content of the auditor's report on a company's financial statements.

Office of Investor Education and Advocacy

The Office of Investor Education and Advocacy (OIEA) seeks to provide individual investors with the information they need to avoid fraud and make sound decisions concerning investments in the securities markets. OIEA advances this mission by communicating daily with investors, responding to their complaints and inquiries, and providing educational programs and materials.

During fiscal year 2013, OIEA processed almost 23,000 complaints, questions, and other contacts from investors, and published 26 investor alerts and bulletins, the most ever in a single year, to educate investors about possible risks to their investment portfolios. The alerts and bulletins warned investors of possible fraudulent scams, including Ponzi schemes using Bitcoin and other virtual currencies and the effect of market interest rates on bond prices and yield. The alerts also are used to educate investors on a variety of current investment-related topics, including by providing information concerning advertising for unregistered offerings as permitted by the JOBS Act. In addition, OIEA staff worked with other regulators to issue joint alerts and bulletins, including an SEC-CFTC investor alert on binary options, an SEC-FINRA alert on pump-and-dump stock schemes, and an SEC-FINRA bulletin on pension and settlement income streams.

Internal Operations

The Office of the Chief Operating Officer (OCOO) leads and coordinates the activities of the Offices of Acquisitions, Financial Management, Human Resources, Information Technology, and Support Operations. The OCOO is leading a coordinated, ongoing and successful effort to improve agency performance and shift resources from back-office to mission-critical functions by upgrading the SEC's technology infrastructure, streamlining agency operations and more effectively training and managing its dedicated and talented staff.

The SEC continues to place a high priority on strong internal controls over the dollars entrusted to the agency and in 2013 – the first full year after migrating financial operations to a shared Federal Services Provider – the SEC successfully eliminated two previously identified significant deficiencies by tightening the controls over budgetary resources and agency assets and had no material weaknesses. This year, the SEC is focusing on strengthening information security, the one remaining significant deficiency, and continuing to modernize its suite of financial systems and enhance reporting and management of disgorgements and penalties. For the past three years, the SEC has had no material weaknesses in its annual financial audits from the Government Accountability Office. These positive results represent very important improvements over past years, but we must continue to work to enhance all aspects of our internal controls.

The SEC also has:

- Realized savings through a new acquisitions strategy based on greater competition, strategic sourcing and longer performance periods. Improved performance in key areas such as contracting oversight and procedures led to significant cost savings in fiscal year

2013. Savings will continue in 2014 as the SEC works with the General Services Administration to reduce its leased space inventory.

- Received and responded to a record number of Freedom of Information Act (FOIA) requests while reducing the backlog and shortening response times, by implementing comprehensive internal controls.

- Streamlined human capital management efforts through use of a new, automated HR Portal that that provides a single, authoritative location for managing all critical content and achieving cost and time savings across an array of human resources-related functions.

- Enhanced the agency's internal controls processes, financial systems and operational effectiveness by eliminating manual processing of filing fees, disgorgements, and penalties.

Leveraging Technology

As one of our highest priorities, the SEC continues to modernize its technology systems, both enhancing internal operational effectiveness and improving external oversight of the financial markets. In fiscal year 2013, the SEC introduced the multi-year technology transformation plan, called "Working Smarter," to improve core operations and implement the agency's new post Dodd-Frank responsibilities. "Working Smarter" is already delivering better services and more effective tools for employees, investors, companies, and the public by:

- Standardizing enterprise-wide platforms;

- Modernizing the SEC.gov and the Electronic Data Gathering, Analysis and Retrieval (EDGAR) filer systems;

- Integrating structured and unstructured data sources;

- Improving internal search and discovery capabilities and providing complex, predictive analytical capabilities;

- Assisting with automated triage and early detection of fraud or abuse at the earliest possible stage; and

- Allowing access to information required for investigations, examinations and enforcing actions with previously unachievable speed and accuracy.

In addition, agency-wide technology initiatives delivered $18 million in cost avoidance in fiscal year 2013 while also freeing up staff time for examinations, enforcement investigations, and other core aspects of the agency's mission.

Fiscal Year 2015 Budget Request

As I have summarized, the SEC has vast and important responsibilities to investors, our markets, and to the facilitation of capital formation. As you know, the SEC's funding mechanism is deficit-neutral, and thus the amount Congress appropriates to the agency does not have an impact on the nation's budget deficit, nor will it impact the amount of funding available for other agencies.[3] Our appropriation also does not count against the caps set in the bi-partisan Congressional budget framework for 2014 and 2015. This structure should allow for an appropriation that provides the agency the resources to fulfill the responsibilities Congress has given it.

I want to be very clear that, irrespective of the agency's funding mechanism, I deeply appreciate that I have a serious responsibility to be an effective and prudent steward of the funds we are appropriated, and since my arrival we have made every effort to effectively and efficiently deploy our funds to accomplish our mission and the goals that Congress has set for us. While the SEC makes increasingly effective and efficient use of its limited resources, we nevertheless were in a position to only examine 9% of registered investment advisers in fiscal year 2013. In 2004, the SEC had 19 examiners per trillion dollars in investment adviser assets under management. Today, we have only 8. More coverage is plainly needed, as the industry itself has acknowledged. The SEC's fiscal year 2015 budget request would permit the SEC to increase its examination coverage of investment advisers who everyday investors are increasingly turning to for investment assistance with retirement and family needs. It also would allow the SEC to build upon its strong efforts and accomplish other key and pressing priorities, including:

- Strengthening our enforcement program's efforts to detect, investigate, and prosecute wrongdoing;

- Continuing the agency's investments in the technologies needed to keep pace with today's high-tech, high-speed markets; and

- Enhancing the agency's oversight of the rapidly changing markets and ability to carry out its increased regulatory responsibilities.

The additional resources we seek are to enable us to keep pace with the growing size and complexity of the securities markets and the agency's broad responsibilities. The SEC currently oversees more than 25,000 market participants, including over 11,000 investment advisers, approximately 10,000 mutual funds and exchange-traded funds, 4,450 broker-dealers, 450 transfer agents, 18 securities exchanges, as well as the PCAOB, FINRA, MSRB, the Securities Investor Protection Corporation, and the FASB. The SEC also has responsibility for reviewing the disclosures and financial statements of approximately 9,000 reporting companies, and has new and expanded responsibilities over the derivatives markets, an additional 2,500 reporting

[3] Section 991 of the Dodd-Frank Act requires the SEC to collect transaction fees from self-regulatory organizations in an amount designed to directly offset our appropriation. The current fee rate is about $0.02 per every $1,000 transacted.

advisers to hedge fund and other private funds, close to 1,000 municipal advisors, ten registered credit rating agencies, and seven registered clearing agencies. And, as you know, between the Dodd-Frank and the JOBS Acts, the SEC was given nearly 100 new rulemaking responsibilities.

The funding we are seeking is fully justified by our existing and growing responsibilities to investors, companies, and the markets. With what I believe is a thoughtful and targeted approach to our resource challenges, the FY 2015 budget request of $1.7 billion would allow the SEC to hire additional staff in critical, core areas and enhance our information technology and training.

Conclusion

Thank you for your support for the agency's mission and for inviting me to be here today to discuss the many initiatives of the SEC. Your continued support will allow us to better protect investors and facilitate capital formation, more effectively oversee the markets and entities we regulate, and build upon the significant improvements we have made to date.

I am happy to answer any questions you may have.

United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued January 7, 2014 Decided April 14, 2014

No. 13-5252

NATIONAL ASSOCIATION OF MANUFACTURERS, ET AL.,
APPELLANTS

v.

SECURITIES AND EXCHANGE COMMISSION, ET AL.,
APPELLEES

Appeal from the United States District Court
for the District of Columbia
(No. 1:13-cv-00635)

Peter D. Keisler argued the cause for appellants. With him on the briefs were *Jonathan F. Cohn*, *Erika L. Myers*, *Quentin Riegel*, *Rachel L. Brand*, and *Steven P. Lehotsky*.

Eric P. Gotting and *Eric G. Lasker* were on the brief for *amici curiae* American Chemistry Council, et al. in support of appellants.

Eugene Scalia, *Thomas M. Johnson Jr.*, *Harry M. Ng*, and *Peter C. Tolsdorf* were on the brief for *amicus curiae* American Petroleum Institute in support of appellants.

John B. Bellinger III and *Sarah M. Harris* were on the brief for *amicus curiae* Experts on the Democratic Republic of the Congo in support of petitioners.

Mark T. Stancil was on the brief for *amici curiae* Retail Litigation Center, Inc., et al. in support in appellants.

Tracey A. Hardin, Assistant General Counsel, Securities and Exchange Commission, argued the cause for appellee. With her on the brief were *Michael A. Conley*, Deputy General Counsel, *Benjamin L. Schiffrin*, Senior Litigation Counsel, and *Daniel Staroselsky*, Senior Counsel.

Julie A. Murray, *Adina H. Rosenbaum*, and *Scott L. Nelson* were on the brief for intervenors-appellees Amnesty International USA, Inc., et al.

Dennis M. Kelleher and *Stephen W. Hall* were on the brief for *amicus curiae* Better Markets, Inc. in support of appellee.

Agnieszka Fryszman and *Thomas J. Saunders* were on the brief for *amici curiae* Senator Durbin, Congressman McDermott, et al. in support of appellee.

Jodi Westbrook Flowers was on the brief for *amici curiae* Global Witness, et al. in support of appellee.

Before: SRINIVASAN, *Circuit Judge*, and SENTELLE and RANDOLPH, *Senior Circuit Judges*.

Opinion for the court filed by *Senior Circuit Judge* RANDOLPH.

Opinion concurring in part filed by *Circuit Judge* SRINIVASAN

RANDOLPH, *Senior Circuit Judge*:

I.

For the last fifteen years, the Democratic Republic of the Congo has endured war and humanitarian catastrophe. Millions have perished, mostly civilians who died of starvation and disease. Communities have been displaced, rape is a weapon, and human rights violations are widespread.

Armed groups fighting the war finance their operations by exploiting the regional trade in several kinds of minerals. Those minerals—gold, tantalum, tin, and tungsten[1]—are extracted from technologically primitive mining sites in the remote eastern Congo. They are sold at regional trading houses, smelted nearby or abroad, and ultimately used to manufacture many different products.[2] Armed groups profit by extorting, and in some cases directly managing, the minimally regulated mining operations.

In 2010, Congress devised a response to the Congo war. Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (relevant parts codified at 15 U.S.C. §§ 78m(p), 78m note ('Conflict Minerals')), requires the Securities and Exchange Commission—the agency normally charged with policing America's financial markets—to issue regulations requiring

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[1] *See* Conflict Minerals, 77 Fed. Reg. 56,274, 56,284-85 (Sept. 12, 2012).

[2] For example, tantalum is used in turbines, camera lenses, medical devices, cell phones, and computers. Tin is used in plastics, phones, and automobile parts. Tungsten is used in lighting, power tools, and golf clubs.

firms using "conflict minerals" to investigate and disclose the origin of those minerals. *See* 15 U.S.C. § 78m(p)(1)(A).

The disclosure regime applies only to "person[s] described" in the Act. *See id.* A "person is described . . . [if] conflict minerals are necessary to the functionality or production of a product manufactured by such person." *Id.* § 78m(p)(2). A described person must "disclose annually, whether [its necessary] conflict minerals . . . did originate in the [Congo] or an adjoining country." *Id.* § 78m(p)(1)(A). If those minerals "did originate" in the Congo or an adjoining country (collectively, "covered countries") then the person must "submit [a report] to the Commission." *Id.* The report must describe the "due diligence" measures taken to establish "the source and chain of custody" of the minerals, including a "private sector audit" of the report. *Id.* The report must also list "the products manufactured or contracted to be manufactured that are not DRC conflict free." *Id.* A product is "DRC conflict free" if its necessary conflict minerals did not "directly or indirectly finance or benefit armed groups" in the covered countries. *Id.*

In late 2010, the Commission proposed rules for implementing the Act. Conflict Minerals, 75 Fed. Reg. 80,948 (Dec. 23, 2010). Along with the proposed rules, the Commission solicited comments on a range of issues. In response, it received hundreds of individual comments and thousands of form letters. Conflict Minerals, 77 Fed. Reg. 56,274, 56,277-78 (Sept. 12, 2012) ("final rule") (codified at 17 C.F.R. §§ 240.13p-1, 249b.400). The Commission twice extended the comment period and held a roundtable for interested stakeholders. *Id.* By a 3-2 vote, it promulgated the final rule, which became effective November 13, 2012. *Id.* at 56,274. The first reports are due by May 31, 2014. *Id.*

The final rule adopts a three-step process, which we outline below, omitting some details not pertinent to this appeal. At step

one, a firm must determine if the rule covers it. *Id.* at 56,279, 56,285. The final rule applies only to securities issuers who file reports with the Commission under sections 13(a) or 15(d) of the Exchange Act. *Id.* at 56,287. The rule excludes issuers if conflict minerals are not necessary to the production or functionality of their products. *Id.* at 56,297-98. The final rule does not, however, include a *de minimis* exception, and thus applies to issuers who use very small amounts of conflict minerals. *Id.* at 56,298. The rule also extends to issuers who only contract for the manufacture of products with conflict minerals, as well as issuers who directly manufacture those products. *Id.* at 56,290-92.

Step two requires an issuer subject to the rule to conduct a "reasonable country of origin inquiry." *Id.* at 56,311. The inquiry is a preliminary investigation reasonably designed to determine whether an issuer's necessary conflict minerals originated in covered countries. *Id.* at 56,312. If, as a result of the inquiry, an issuer either knows that its necessary conflict minerals originated in covered countries or "has reason to believe" that those minerals "may have originated" in covered countries, then it must proceed to step three and exercise due diligence. *Id.* at 56,313.[3]

An issuer who proceeds to step three must "exercise due diligence on the source and chain of custody of its conflict minerals." *Id.* at 56,320. If, after performing due diligence an

[3] If the inquiry discloses that there is *no* reason to believe the issuer's conflict minerals came from covered countries or that there is a reasonable basis for believing that the issuer's conflict minerals came from scrap or recycled sources, then the issuer need only file a specialized disclosure report on the newly-created Form SD, briefly describing its inquiry, 77 Fed. Reg. at 56,313, and provide a link to the report on its website. *Id.* at 56,315. No due diligence is required.

issuer still has reason to believe its conflict minerals may have originated in covered countries, it must file a conflict minerals report. The report must describe both its due diligence efforts, including a private sector audit,[4] *id.*, and those products that have "not been found to be 'DRC conflict free,'" *id.* at 56,322 (quoting 15 U.S.C. § 78m(p)(1)(A)(ii)). The report must also provide detailed information about the origin of the minerals used in those products. *Id.* at 56,320.

The final rule does offer a temporary reprieve. During a two-year phase-in period (four years for smaller issuers), issuers may describe certain products as "DRC conflict undeterminable" instead of conflict-free or not conflict-free. *Id.* at 56,321-22. That option is available only if the issuer cannot determine through due diligence whether its conflict minerals originated in covered countries, or whether its minerals benefitted armed groups. *Id.* An issuer taking advantage of the phase-in by describing its products as "DRC conflict undeterminable" must still perform due diligence and file a conflict minerals report, but it need not obtain a private sector audit. *Id.*

The Commission analyzed in some detail the final rule's costs. *Id.* at 56,333-54. It estimated the total costs of the final rule would be $3 billion to $4 billion initially, and $207 million to $609 million annually thereafter. *Id.* at 56,334. To come up with this estimate, the Commission reviewed four cost estimates it received during the comment period, supplemented with its own data. *Id.* at 56,350-54. Where possible, the Commission

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[4] To be precise, an issuer must also submit a conflict minerals report if, as a result of its earlier inquiry, it *knows* that its conflict minerals came from covered countries. 77 Fed. Reg. at 56,320. That issuer must still perform due diligence, but the trigger for the report is the preliminary inquiry, not the due diligence results.

also estimated or described the marginal costs of its significant discretionary choices. *Id.* at 56,342-50.

The Commission was "unable to readily quantify" the "compelling social benefits" the rule was supposed to achieve: reducing violence and promoting peace and stability in the Congo. *Id.* at 56,350. Lacking quantitative data on those issues, the Commission explained that it could not "assess how effective" the rule would be in achieving any benefits. *Id.* Instead, the Commission relied on Congress's judgment that supply-chain transparency would promote peace and stability by reducing the flow of money to armed groups. *Id.* at 56,275-76, 56,350. That judgment grounded many of the Commission's discretionary choices in favor of greater transparency. *See, e.g., id.* at 56,288, 56,291, 56,298.

The National Association of Manufacturers challenged the final rule, raising Administrative Procedure Act, Exchange Act, and First Amendment claims.[5] The district court rejected all of the Association's claims and granted summary judgment for the Commission and intervenor Amnesty International. *See Nat'l Ass'n of Mfrs. v. SEC*, 956 F. Supp. 2d 43, 46 (D.D.C. 2013).

II.

Under the Administrative Procedure Act, a court must "hold unlawful and set aside agency action . . . found to be[] arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law[, or] in excess of statutory jurisdiction." 5

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[5] The Association initially filed a petition for review in this court. After our opinion in *American Petroleum Institute v. SEC*, 714 F.3d 1329 (D.C. Cir. 2013), the Association moved to transfer the case to the district court, and we granted the motion. *See* Per Curiam Order, *Nat'l Ass'n of Mfrs. v. SEC*, No. 12-1422 (D.C. Cir. May 2, 2013).

U.S.C. § 706(2). In making these determinations, we review the administrative record as if the case had come directly to us without first passing through the district court. *See Holland v. Nat'l Mining Ass'n*, 309 F.3d 808, 814 (D.C. Cir. 2002).

A.

The Act does not include an exception for *de minimis* uses of conflict minerals. The Association claims that the rule should have included a *de minimis* exception and that the Commission erred when, during the rulemaking, it failed to recognize its authority to create one and assumed that the statute foreclosed any exception.

Although the Commission acknowledges that it had the authority to create such an exception, *see, e.g.*, 15 U.S.C. § 78mm(a)(1); *Ala. Power Co. v. Costle*, 636 F.2d 323, 360-61 (D.C. Cir. 1979), it stated during the rulemaking that a *de minimis* exception "would be contrary to the [statute] and Congressional purpose," and that if Congress intended to include such an exception it "would have done so explicitly" as it did in a nearby section of Dodd-Frank. 77 Fed. Reg. at 56,298. But we do not interpret that explanation the way the Association does. Read in context, the Commission's language addressed the general purpose of the statute and the effects of its policy choices. Congress knew that conflict minerals are often used in very small quantities. The Commission, relying on text, context, and policy concerns, inferred that Congress wanted the disclosure regime to work even for those small uses. *Id.* A *de minimis* exception would, in the Commission's judgment, "thwart" that goal. *Id.*

The Commission's explanation was thus a far cry from a mere "parsing of the statutory language," *Peter Pan Bus Lines, Inc. v. Fed. Motor Carrier Safety Admin.*, 471 F.3d 1350, 1354 (D.C. Cir. 2006) (quoting *PDK Labs., Inc. v. DEA*, 362 F.3d

786, 797 (D.C. Cir. 2004)), that has caused us to set aside agency action in other cases. *See, e.g.*, *id.* at 1353 (statute's "plain language" "does not permit" action); *Arizona v. Thompson*, 281 F.3d 248, 253-54 (D.C. Cir. 2002) ("intent of Congress, rather than of HHS" "does not permit" action); *Alarm Indus. Commc'ns Comm. v. FCC*, 131 F.3d 1066, 1068 (D.C. Cir. 1997) ("plain meaning" of a statute was "unambiguous"). Nothing in the Commission's explanation suggests, as in those cases, that the statutory text by itself foreclosed any exception. Rather, the explanation "looks to be a quite ordinary construction of a statute over which the agency has been given interpretive authority." *PDK Labs.*, 362 F.3d at 807-08 (Roberts, J., concurring in part and concurring in the judgment).

The Commission did not act arbitrarily and capriciously by choosing not to include a *de minimis* exception. Because conflict minerals "are often used in products in very limited quantities," the Commission reasoned that "a de minimis threshold could have a significant impact on the final rule." 77 Fed. Reg. at 56,298 (quoting U.S. Dep't of State Responses to Request for Comment). The Association suggests that this rationale would not apply to *de minimis* thresholds measured by mineral use per-issuer, instead of per-product. Although that sort of threshold was *suggested* in a few comments, those comments did not explain the merits of the proposal or compare it to other thresholds. The Commission was not obligated to respond to those sorts of comments. *See Pub. Citizen, Inc. v. FAA*, 988 F.2d 186, 197 (D.C. Cir. 1993); *see also Alianza Fed. de Mercedes v. FCC*, 539 F.2d 732, 739 (D.C. Cir. 1976). In any event, the Commission's rationale still applies to a per-issuer exemption. Having established that conflict minerals are frequently used in minute amounts, the Commission could reasonably decide that a per-issuer exception could "thwart" the statute's goals by leaving unmonitored small quantities of minerals aggregated over many issuers. Though costly, that decision bears a "rational

connection" to the facts. *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

B.

As we have mentioned, the final rule requires an issuer to conduct "due diligence" if, after its inquiry, it "has *reason to believe* that its necessary conflict minerals *may have originated* in" covered countries. 77 Fed. Reg. at 56,313 (emphasis added). According to the Association, that requirement contravenes the statute, which requires issuers to "submit to the Commission a report" only "in cases in which [their] conflict minerals *did originate*" in covered countries. 15 U.S.C. § 78m(p)(1)(A) (emphasis added).

The Association has conflated distinct issues. The statute does require a conflict minerals report if an issuer has already performed due diligence and determined that its conflict minerals did originate in covered countries. But the statute does not say in what circumstances an issuer must perform due diligence before filing a report. The statute also does not list what, if any, reporting obligations may be imposed on issuers uncertain about the origin of their conflict minerals.

In general, if a statute "is silent or ambiguous with respect to the specific issue at hand" then "the Commission may exercise its reasonable discretion in construing the statute." *Bldg. Owners & Managers Ass'n Int'l v. FCC*, 254 F.3d 89, 93-94 (D.C. Cir. 2001) (quoting *Chevron U.S.A., Inc. v. NRDC*, 467 U.S. 837, 843 (1984)). And that discretion may be exercised to regulate circumstances or parties beyond those explicated in a statute. *See, e.g.*, *Mourning v. Family Publ'ns Serv., Inc.*, 411 U.S. 356, 371-73 (1973); *Tex. Rural Legal Aid, Inc. v. Legal Servs. Corp.*, 940 F.2d 685, 694 (D.C. Cir. 1991). Here, the statute is silent with respect to both a threshold for conducting due diligence, and the obligations of uncertain issuers. The

Commission used its delegated authority to fill those gaps, and nothing in the statute foreclosed it from doing so.[6]

We also reject the Association's argument that the Commission's due diligence threshold was arbitrary and capricious. The Commission adopted a lower due diligence threshold to prevent issuers from "ignor[ing] . . . warning signs" that their conflict minerals originated in covered countries. 77 Fed. Reg. at 56,313. In particular, the Commission wanted issuers who encounter red flags to "learn[] the ultimate source" of their conflict minerals. *Id.* at 56,314. Requiring a good-faith inquiry does not resolve the Commission's concerns. A good-faith inquiry could generate red flags but, without a further due diligence requirement, those red flags would not give way to "ultimate" answers, which result would "undermine the goals of the statute." *Id.*

Although the Commission adopted an expansive rule, it did not go as far as it might have, and it declined to require due diligence by issuers who encounter no red flags in their inquiry. *Id.* By doing so, the Commission reduced the costs of the final rule, and resolved the Association's concern that the rule will yield a flood of trivial information. *Id.*

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[6] The parties also disagree over a more subtle point. The Association concedes that due diligence can be required if an issuer has "reason to believe" its conflict minerals "did" originate in covered countries. *See* Oral Arg. Tr. at 4:14-5:16. Since "reason to believe" inherently conveys uncertainty, it is unclear how that standard would differ in practice from the Commission's "reason to believe . . . may" standard. Because the statute is ambiguous we need not resolve the issue.

C.

By its terms, the statute applies to "Persons Described," or those that "manufacture[]" a product in which conflict minerals "are necessary to the functionality or production" of the product. 15 U.S.C. § 78m(p)(2). If those persons file a conflict minerals report the statute requires them to describe products they "manufacture[] or contract[] to be manufactured." *Id.* § 78m(p)(1)(A)(i). The Commission reconciled these provisions in an expansive fashion, applying the final rule not only to issuers that manufacture their own products, but also to those that only contract to manufacture. 77 Fed. Reg. at 56,290-91. The Association claims that decision violates the statute. By using the phrase "contracted to be manufactured" in one provision, but only "manufactured" in another, Congress allegedly intended to limit the scope of the latter.

The persons-described provision, though it refers expressly to manufacturers, is silent on the obligations of issuers that only contract for their goods to be manufactured. Standing alone, that silence allows the Commission to use its delegated authority in determining the rule's scope, just as with the due diligence provision. The Association's argument is no more persuasive here because Congress explicitly used the phrase "contracted to be manufactured" in a nearby provision.

The Association invokes the canon *expressio unius est exclusio alterius*. But that canon is "an especially feeble helper in an administrative setting, where Congress is presumed to have left to reasonable agency discretion questions that it has not directly resolved." *Cheney R. Co., Inc. v. ICC*, 902 F.2d 66, 69 (D.C. Cir. 1990); *see Tex. Rural Legal Aid*, 940 F.2d at 694. The more reasonable interpretation of the statute as a whole is that Congress simply "deci[ded] not to mandate any solution" and left the rule's application to contractors "to agency discretion." *Cheney R. Co.*, 902 F.2d at 69 (emphasis omitted).

Potential "internal[] inconsisten[cy]" between the due diligence and persons-described provisions also persuades us that the statute is ambiguous. *See* 77 Fed. Reg. at 56,291. An issuer subject to the rule must describe due diligence measures it undertakes on the source and chain of custody of "such minerals." 15 U.S.C. § 78m(p)(1)(A)(i). "[S]uch minerals" refers, in the preceding paragraph, to "minerals that are necessary as described in paragraph (2)(B)." *Id.* § 78m(p)(1)(A). Paragraph (2)(B) in turn refers to minerals "necessary to . . . a product *manufactured*" by a person described. *Id.* § 78m(p)(2) (emphasis added). Thus, under the Association's reading, an issuer would not have to describe its due diligence efforts (or even, presumably, to conduct due diligence) for products it does not manufacture. And yet, the statute requires that same issuer to describe its contracted-for products as not conflict free under § 78m(p)(1)(A)(ii) if they do not meet the statute's definition. We do not understand how an issuer could describe its contracted-for products without first conducting due diligence on those products, or why the statute would require certain products to be described in a report without a corresponding explanation of the related due diligence efforts. The Commission's interpretation is therefore reasonable because it reconciles otherwise confusing and conflicting provisions "into an harmonious whole." *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 133 (2000) (internal quotation omitted).

The Commission did not erroneously assume that its interpretation was compelled by Congress. As the district court explained, referring once to Congress's intent as "clear" does not establish that the Commission believed it lacked discretion. *Nat'l Ass'n of Mfrs.*, 956 F. Supp. 2d at 72 (quoting *Ass'n of Private Sector Colls. & Univs. v. Duncan*, 681 F.3d 427, 445 (D.C. Cir. 2012)). The balance of the Commission's explanation, as with the *de minimis* exception, falls well short of the language on which we have relied to set aside agency action. *See supra* at 8-9. Rather than merely parsing the statutory

language, the Commission provided policy justifications and structural inferences supporting its decision. 77 Fed. Reg. at 56,291.

Nor did the Commission act arbitrarily or capriciously. The final rule applies to contractors so that issuers cannot "avoid [its] requirements by contracting out of the manufacture" of their products. *Id.* at 56,291. The Association thinks the final rule reaches too far and overstates the risk of circumvention. But that is a question of judgment for the Commission, which we will not second-guess. The Commission's explanation was "rational," and that is enough. *State Farm*, 463 U.S. at 43.

D.

The final rule's temporary phase-in period allows issuers to describe certain products as "DRC conflict undeterminable" and to avoid conducting an audit. 77 Fed. Reg. at 56,320-21. The Association claims the length of the phase-in—two years for large issuers and four years for small issuers—is inconsistent, arbitrary, and capricious because small issuers are part of large-issuer supply chains. All issuers, the Association says, will therefore face the same information problems. Not so. Large issuers, the Commission explained, can exert greater leverage to obtain information about their conflict minerals, *id.* at 56,322-23, and they may be able to exercise that leverage indirectly on behalf of small issuers in their supply chains. *Id.* at 56,323 n.570. Like the district court, we can "see the trickledown logic underlying the Commission's approach," even if it does not hold in all cases. *Nat'l Ass'n of Mfrs.*, 956 F. Supp. 2d at 73 n.24.

III.

Two provisions require the Commission to analyze the effects of its rules. Under 15 U.S.C. § 78w(a)(2), the Commission "shall not adopt any rule [under § 78m(p)] . . . which would impose a burden on competition not necessary or appropriate" to advance the purposes of securities laws. Also, when the Commission "is engaged in rulemaking," it must "consider, in addition to the protection of investors, whether the action will promote efficiency, competition, and capital formation." 15 U.S.C. § 78c(f). The Association, citing several of our recent opinions, alleges that the Commission violated those sections because it did not adequately analyze the costs and benefits of the final rule. *See Bus. Roundtable v. SEC*, 647 F.3d 1144 (D.C. Cir. 2011); *Am. Equity Inv. Life Ins. Co. v. SEC*, 613 F.3d 166 (D.C. Cir. 2010); *Chamber of Commerce v. SEC*, 412 F.3d 133 (D.C. Cir. 2005).[7]

We do not see any problems with the Commission's cost-side analysis. The Commission exhaustively analyzed the final rule's costs. *See* 77 Fed. Reg. at 56,333-54. It considered its own data as well as cost estimates submitted during the comment period, *id.* at 56,350-54, and arrived at a large bottom-line figure that the Association does not challenge. *Id.* at 56,334. The Commission specifically considered the issues listed in § 78c(f) and concluded that the rule would impose competitive costs, but have relatively minor or offsetting effects on efficiency and capital formation. 77 Fed. Reg. at 56,350-51. The Association does not dispute those conclusions.

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[7] Dodd-Frank independently requires the Comptroller General of the United States to submit annual reports to Congress "assess[ing] the effectiveness of . . . 15 U.S.C. 78m(p) in promoting peace and security in the" covered countries. 15 U.S.C. § 78m note ('Conflict Minerals').

Instead, the Association argues on the benefit side that the Commission failed to determine whether the final rule would actually achieve its intended purpose. But we find it difficult to see what the Commission could have done better. The Commission determined that Congress intended the rule to achieve "compelling social benefits," *id.* at 56,350, but it was "unable to readily quantify" those benefits because it lacked data about the rule's effects. *Id.*

That determination was reasonable. An agency is not required "to measure the immeasurable," and need not conduct a "rigorous, quantitative economic analysis" unless the statute explicitly directs it to do so. *Inv. Co. Inst. v. Commodity Futures Trading Comm'n*, 720 F.3d 370, 379 (D.C. Cir. 2013) (internal quotation marks omitted); *see Chamber of Commerce*, 412 F.3d at 360. Here, the rule's benefits would occur half-a-world away in the midst of an opaque conflict about which little reliable information exists, and concern a subject about which the Commission has no particular expertise. Even if one could estimate how many lives are saved or rapes prevented as a direct result of the final rule, doing so would be pointless because the costs of the rule—measured in dollars—would create an apples-to-bricks comparison.

Despite the lack of data, the Commission *had* to promulgate a disclosure rule. 15 U.S.C. § 78m(p)(1)(A). Thus, it relied on Congress's "determin[ation] that [the rule's] costs were necessary and appropriate in furthering the goals" of peace and security in the Congo. 77 Fed. Reg. at 56,350. The Association responds that the Commission only had to adopt some disclosure rule; Congress never decided the merits of the Commission's discretionary choices. True enough. But Congress did conclude, as a general matter, that transparency and disclosure would benefit the Congo. *See* 15 U.S.C. § 78m note. And the Commission invoked that general principle to justify each of its discretionary choices. *See id.* at 56,291; (contractors to

manufacture); *id.* at 56,298 (no *de minimis* exception); *id.* at 56,313-14 (due diligence standard); *id.* at 56,322 (phase-in).

What the Commission did not do, despite many comments suggesting it, was question the basic premise that a disclosure regime would help promote peace and stability in the Congo. If the Commission second-guessed Congress on that issue, then it would have been in an impossible position. If the Commission had found that disclosure would fail of its essential purpose, then it could not have adopted *any* rule under the Association's view of §§ 78w(a)(2) and 78c(f). But promulgating some rule is exactly what Dodd-Frank required the Commission to do.

IV.

This brings us to the Association's First Amendment claim. The Association challenges only the requirement that an issuer describe its products as not "DRC conflict free" in the report it files with the Commission and must post on its website.[8] 15 U.S.C. § 78m(p)(1)(A)(ii) & (E). That requirement, according to the Association, unconstitutionally compels speech. The district court, applying *Central Hudson Gas & Electric Corp. v.*

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[8] The district court stated that the Association had limited its First Amendment claim to product descriptions on an issuer's "website[]." *Nat'l Ass'n of Mfrs.*, 956 F. Supp. 2d at 73. In this court both the Commission and the intervenor Amnesty International understood the Association's claim to encompass also the not "DRC conflict free" statement required in a company's report to the Commission. *See, e.g.*, Appellee Br. 58, 61; Intervenor Br. 31. When asked about the scope of the claim during oral argument, counsel for the Association clarified that the First Amendment claim also extends to labeling of products as not conflict free in reports to the Commission. Oral Arg. Tr. at 15:25-16:11. The Association does not have any First Amendment objection to any other aspect of the conflict minerals report or required disclosures. *Id.* at 16:11-16:25.

Public Service Commission, 447 U.S. 557, 564-66 (1980), rejected the First Amendment claim. *Nat'l Ass'n of Mfrs.*, 956 F. Supp. 2d at 73, 75-82. We review its decision *de novo*. *Am. Bus. Ass'n v. Rogoff*, 649 F.3d 734, 737 (D.C. Cir. 2011).[9]

The Commission argues that rational basis review is appropriate because the conflict free label discloses purely factual non-ideological information. We disagree. Rational basis review is the exception, not the rule, in First Amendment cases. *See Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 641-42 (1994). The Supreme Court has stated that rational basis review applies to certain disclosures of "purely factual and uncontroversial information." *Zauderer v. Office of Disciplinary Counsel*, 471 U.S. 626, 651 (1985). But as intervenor Amnesty International forthrightly recognizes,[10] we have held that

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[9] The concurring opinion suggests that we hold the First Amendment portion of our opinion in abeyance and stay implementation of the relevant part of the final rule. We do not see why that approach is preferable, even though it might address the risk of irreparable First Amendment harm. Issuing an opinion now provides an opportunity for the parties in this case to participate in the court's *en banc* consideration of this important First Amendment question. That is consistent with the court's previous approach in *United States v. Crowder*, 87 F.3d 1405, 1409 (D.C. Cir. 1996) (en banc), *cert. granted, judgment vacated*, 519 U.S. 1087 (1997), *on remand* 141 F.3d 1202 (D.C. Cir. 1998) (en banc), in which we consolidated two cases presenting the same legal issue so that all parties could participate in the *en banc* proceeding.

[10] *See* Intervenor Br. 32 n.5 ("Amnesty International recognizes that this panel is bound by *R.J. Reynolds Tobacco Co. v. FDA*, 696 F.3d 1205 (D.C. Cir. 2012), which circumscribed *Zauderer*'s rational-basis standard."). For its part, the Commission makes no attempt to distinguish *R.J. Reynolds*; in fact, it does not even acknowledge the holding of *R.J. Reynolds* regarding *Zauderer*, which the Commission also fails to cite.

Zauderer is "limited to cases in which disclosure requirements are 'reasonably related to the State's interest in preventing deception of consumers.'" *R.J. Reynolds Tobacco Co. v. FDA*, 696 F.3d 1205, 1213 (D.C. Cir. 2012) (quoting *Zauderer*, 471 U.S. at 651); *see Nat'l Ass'n of Mfrs. v. NLRB*, 717 F.3d 947, 959 n.18 (D.C. Cir. 2013). *But see Am. Meat Inst. v. USDA*, No. 13-5281, 2014 WL 1257959, at *4-7 (D.C. Cir. Mar. 28, 2014), *vacated and en banc rehearing ordered*, Order, No. 13-5281 (D.C. Cir. Apr. 4, 2014) (en banc). No party has suggested that the conflict minerals rule is related to preventing consumer deception. In the district court the Commission admitted that it was not. *Nat'l Ass'n of Mfrs.*, 956 F. Supp. 2d at 77.

That a disclosure is factual, standing alone, does not immunize it from scrutiny because "[t]he right against compelled speech is not, and cannot be, restricted to ideological messages." *Nat'l Ass'n of Mfrs.*, 717 F.3d at 957. Rather, "th[e] general rule, that the speaker has the right to tailor the speech, applies . . . equally to statements of fact the speaker would rather avoid." *Hurley v. Irish-Am. Gay, Lesbian & Bisexual Grp.*, 515 U.S. 557, 573-74 (1995) (citing cases). As the Supreme Court put it in *Riley v. National Federation of the Blind of North Carolina, Inc.*, the cases dealing with ideological messages[11] "cannot be distinguished simply because they involved compelled statements of opinion while here we deal with compelled statements of 'fact.'" 487 U.S. 781, 797 (1988).

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[11] *See, e.g.*, *Wooley v. Maynard*, 430 U.S. 705 (1977); *W. Va. State Bd. of Educ. v. Barnette*, 319 U.S. 624 (1943); *see also Rumsfeld v. Forum for Academic & Institutional Rights, Inc.*, 547 U.S. 47, 61 (2006) ("Some of [the] Court's leading First Amendment precedents have established the principle that freedom of speech prohibits the government from telling people what they must say.").

At all events, it is far from clear that the description at issue—whether a product is "conflict free"—is factual and non-ideological. Products and minerals do not fight conflicts. The label "conflict free" is a metaphor that conveys moral responsibility for the Congo war. It requires an issuer to tell consumers that its products are ethically tainted, even if they only indirectly finance armed groups. An issuer, including an issuer who condemns the atrocities of the Congo war in the strongest terms, may disagree with that assessment of its moral responsibility. And it may convey that "message" through "silence." *See Hurley*, 515 U.S. at 573. By compelling an issuer to confess blood on its hands, the statute interferes with that exercise of the freedom of speech under the First Amendment. *See id.*

Citing our opinion in *SEC v. Wall Street Publishing Institute, Inc.*, intervenor Amnesty International argues that rational basis review applies because the final rule exercises "the federal government's broad powers to regulate the securities industry." 851 F.2d 365, 372 (D.C. Cir. 1988).[12] In *Wall Street Publishing* the court held that the Commission could, without running afoul of the First Amendment, seek an injunction requiring that a magazine disclose the consideration it received in exchange for stock recommendations. *Id.* at 366. Significantly, the court chose to apply a less exacting level of scrutiny, even though the injunction did not fall within any well-established exceptions to strict scrutiny. *Id.* at 372-73.

It is not entirely clear what would result if *Wall Street Publishing* did apply to this case. The opinion never states that rational basis review governs securities regulations as such. At one point, the opinion even suggests that the power to regulate

[12] The Commission does not join this argument.

securities might be roughly tantamount to the government's more general power to regulate commercial speech. *Id.* at 373.

Whatever its consequences, we do not think *Wall Street Publishing* applies here. The injunction at issue there regulated "inherently misleading" speech "employed . . . to sell securities." *Id.* at 371, 373. The opinion thus concerned the same consumer-deception rationale as did *Zauderer*. *See id.* at 374. As explained above, consumer-deception is not an issue here, and the "conflict free" label is not employed to sell securities.

To read *Wall Street Publishing* broadly would allow Congress to easily regulate otherwise protected speech using the guise of securities laws. Why, for example, could Congress not require issuers to disclose the labor conditions of their factories abroad or the political ideologies of their board members, as part of their annual reports? Those examples, obviously repugnant to the First Amendment, should not face relaxed review just because Congress used the "securities" label.

Having established that rational basis review does not apply, we do not decide whether to use strict scrutiny or the *Central Hudson* test for commercial speech. That is because the final rule does not survive even *Central Hudson*'s intermediate standard.

Under *Central Hudson*, the government must show (1) a substantial government interest that is; (2) directly and materially advanced by the restriction; and (3) that the restriction is narrowly tailored. 447 U.S. at 564-66; *see R.J. Reynolds*, 696 F.3d at 445. The narrow tailoring requirement invalidates regulations for which "narrower restrictions on expression would serve [the government's] interest as well." *Cent. Hudson*, 447 U.S. at 565. Although the government need not choose the "least restrictive means" of achieving its goals, there must be a "reasonable" "fit" between means and ends. *Bd.*

of Trs. v. Fox, 492 U.S. 469, 480 (1989). The government cannot satisfy that standard if it presents no evidence that less restrictive means would fail. *Sable Commc'ns v. FCC*, 492 U.S. 115, 128-32 (1989).

The Commission has provided no such evidence here. The Association suggests that rather than the "conflict free" description the statute and rule require, issuers could use their own language to describe their products, or the government could compile its own list of products that it believes are affiliated with the Congo war, based on information the issuers submit to the Commission. The Commission and Amnesty International simply assert that those proposals would be less effective. But if issuers can determine the conflict status of their products from due diligence, then surely the Commission can use the same information to make the same determination. And a centralized list compiled by the Commission in one place may even be more convenient or trustworthy to investors and consumers. The Commission has failed to explain why (much less provide evidence that) the Association's intuitive alternatives to regulating speech would be any less effective.

The Commission maintains that the fit here is reasonable because the rule's impact is minimal. Specifically, the Commission argues that issuers can explain the meaning of "conflict free" in their own terms. But the right to explain compelled speech is present in almost every such case and is inadequate to cure a First Amendment violation. *See Nat'l Ass'n of Mfrs.*, 717 F.3d at 958. Even if the option to explain minimizes the First Amendment harm, it does not eliminate it completely. Without any evidence that alternatives would be

less effective, we still cannot say that the restriction here is narrowly tailored.[13]

We therefore hold that 15 U.S.C. § 78m(p)(1)(A)(ii) & (E), and the Commission's final rule, 77 Fed. Reg. at 56,362-65, violate the First Amendment to the extent the statute and rule require regulated entities to report to the Commission and to state on their website that any of their products have "not been found to be 'DRC conflict free.'"[14]

The judgment of the district court is therefore affirmed in part and reversed in part and the case is remanded for further proceedings consistent with this opinion.

So ordered.

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[13] Because the statute and final rule fail the third part of the *Central Hudson* test, we need not decide whether they satisfy the second part: that the speech restrictions directly and materially advance the government's asserted interest.

[14] The requirement that an issuer use the particular descriptor "not been found to be 'DRC conflict free'" may arise as a result of the Commission's discretionary choices, and not as a result of the statute itself. We only hold that the statute violates the First Amendment to the extent that it imposes that description requirement. If the description is purely a result of the Commission's rule, then our First Amendment holding leaves the statute itself unaffected.

SRINIVASAN, *Circuit Judge, concurring in part*: I concur fully in Parts I, II, and III of the court's opinion, which sustain the SEC's Conflict Minerals Rule against challenges brought by the National Association of Manufacturers under the Administrative Procedure Act and the Securities Exchange Act. Respectfully, I do not join Part IV of the court's opinion, which addresses the Association's First Amendment claim. A question of central significance to the resolution of that claim is pending before the en banc court in another case. I would opt to hold in abeyance our consideration of the First Amendment issue in this case pending the en banc court's decision in the other, rather than issue an opinion that might effectively be undercut by the en banc court in relatively short order.

The intersection between the two cases arises from the way in which the court resolves the Association's First Amendment claim. An essential step in the majority's First Amendment analysis is that the relaxed standard for reviewing compelled commercial-speech disclosures set forth in *Zauderer v. Office of Disciplinary Counsel*, 471 U.S. 626, 651 (1985), applies only if the disclosure requirement serves a governmental interest in preventing consumer deception. *Ante*, at 18-19. That precise question is currently pending before our en banc court in *American Meat Institute v. United States Department of Agriculture*, No. 13-5281. In that case, a panel of this court (of which I was a member) issued an opinion upholding labeling requirements for meat products under *Zauderer*'s standard, which requires that disclosure mandates be "reasonably related" to the government's interests. __ F.3d __ (slip op. at 11) (quoting *Zauderer*, 471 U.S. at 651). The panel relied on the government's interest in arming consumers with additional information when purchasing food, rejecting the suggestion that *Zauderer* review applies only to disclosure mandates aimed to cure consumer deception. *Id.* at __ (slip op. at 10).

The full court, acting on the panel's suggestion, *id.* at __ (slip op. at 14 n.1), has now voted to rehear the case en banc,

with oral argument set to take place on May 19, 2014. *See* Order, No. 13-5281 (D.C. Cir. Apr. 4, 2014) (en banc) (per curiam). The en banc court will receive supplemental briefing on the question whether review of "mandatory disclosure" obligations can "properly proceed under *Zauderer*" even if they serve interests "other than preventing deception." *Id.* My good colleagues in the majority here assume the answer to that question is no, and their decision on the First Amendment claim rests on that assumption. *Ante*, at 18-19. But if the en banc court in *American Meat* decides otherwise, the First Amendment claim in this case presumably would need to be reconsidered afresh.

To avert that possibility, a panel in such circumstances can elect to withhold its decision until the en banc court decides the potentially dispositive question. *See, e.g., United States v. Johnson*, No. 91-3221, 1993 U.S. App. LEXIS 36925, at *1-2 (D.C. Cir. Dec. 14, 1993) (per curiam) (non-precedential); *United States v. Gerald*, 5 F.3d 563, 565 (D.C. Cir. 1993); *United States v. Dockery*, 965 F.2d 1112, 1113-14 & n.1 (D.C. Cir. 1992); *Pub. Citizen v. Nat'l Highway Traffic Safety Admin.*, 848 F.2d 256, 259 (D.C. Cir. 1988); *see also Judicial Watch, Inc. v. Dep't of Energy*, No. 04-5204, 2004 U.S. App. LEXIS 22661, at *2 (D.C. Cir. Oct. 8, 2004) (per curiam) (on court's own motion, ordering parties to show cause why appeal should not be held in abeyance pending en banc court's resolution of related question). The court likewise frequently withholds a decision in analogous situations in which a case potentially implicates a question pending before the Supreme Court. *See, e.g., Wagner v. FEC*, No. 13-5162 (D.C. Cir. Sept. 11, 2013) (en banc) (per curiam); *United States v. Epps*, 707 F.3d 337, 341 (D.C. Cir. 2013); *Trump Plaza Assocs. v. NLRB*, 679 F.3d 822, 826 (D.C. Cir. 2012); *Belbacha v. Bush*, 520 F.3d 452, 456-57 (D.C. Cir. 2008). Ordinarily, when resolution of a case before a panel could turn on a question under consideration by the en

banc court in a separate case, the latter case would have been pending for some time. The circumstances here are unusual in that regard because this case was docketed shortly before, and presented to the court essentially contemporaneously with, *American Meat*. But because en banc review has now been granted in *American Meat*, my own respectful preference would be to withhold a decision on the First Amendment claim here pending the en banc decision in that case.

To be sure, there is no certainty that the en banc decision in *American Meat* will alter the panel's resolution here. As could always be the case when a panel addresses an issue pending before the en banc court in a different case, the full court might agree with the panel's inclination—here, by concluding that *Zauderer*'s "reasonably related" standard applies only to disclosure requirements aimed to prevent consumer deception. Moreover, even if the en banc court were to decide that *Zauderer* extends more broadly, the majority suggests that the conflict minerals disclosure requirement might fail to satisfy another precondition to *Zauderer* scrutiny, i.e., that the disclosure be factual and non-controversial. *See ante*, at 20. As it stands, though, the majority's decision on the First Amendment challenge hinges on the premise that *Zauderer* applies only to the prevention of deception—the issue now under consideration by the en banc court.

I fully join the court's resolution of the Association's remaining challenges to the SEC's rule, however. The parties understandably desire a final decision from this court before the May 31, 2014, deadline for the first conflict minerals disclosure report. *See* 77 Fed. Reg. 56,274, 56,305 (Sept. 12, 2012). Parts I, II, and III of the court's opinion address non-First Amendment challenges bearing no connection to the en banc proceedings in *American Meat*. Those parts of the court's opinion—which resolve the claims to which the Association devotes its principal

attention—should issue forthwith. *See, e.g.*, *Coke Oven Envtl. Task Force v. EPA*, No. 06-1131, 2006 U.S. App. LEXIS 23499, at *4 (D.C. Cir. Sept. 13, 2006) (per curiam) (severing one aspect of case and holding it in abeyance pending Supreme Court's decision in *Massachusetts v. EPA*, 549 U.S. 497 (2007)); *United States v. Coles*, No. 03-3113, 2004 U.S. App. LEXIS 25904, at *3-4 (D.C. Cir. Dec. 13, 2004) (per curiam) (affirming judgment in part and holding remaining portion of case in abeyance pending Supreme Court's decision in *United States v. Booker*, 543 U.S. 220 (2005)); *Wrenn v. Shalala*, No. 94-5198, 1995 U.S. App. LEXIS 8731, at *1-3 (D.C. Cir. Mar. 8, 1995) (per curiam) (non-precedential) (affirming dismissal of certain claims, reversing dismissal of other claims, and holding separate claim in abeyance pending Supreme Court decision in *Kimberlin v. Quinlan*, 515 U.S. 321 (1995)).

That approach would afford a resolution as to the lion's share of the challenges to the SEC's rule in advance of the date by which the parties seek a decision. It would still leave unresolved, though, the more narrowly focused challenge under the First Amendment to the particular requirement that manufacturers categorize certain products as "not found to be 'DRC conflict-free'" in a conflict minerals report. 17 C.F.R. § 249b.400, Form SD, Item 1.01(c)(2). The court, however, could stay enforcement of that aspect of the SEC's rule pending disposition of the Association's First Amendment claim.

In these unique circumstances, there would be strong arguments supporting issuance of a stay under the governing standards. *See generally Wash. Metro. Area Transit Comm'n v. Holiday Tours, Inc.*, 559 F.2d 841, 842-43 & n.1 (D.C. Cir. 1977). With regard to the likelihood of success on the merits: the majority concludes that the disclosure requirement fails to satisfy the test of *Central Hudson Gas & Electric Corp. v. Public Service Commission*, 447 U.S. 557 (1980); and there are,

at the least, substantial questions concerning *Zauderer*'s applicability given the grant of en banc review in *American Meat* and the majority's suggestion, *ante* at 20, that the disclosure requirement may fail to qualify for *Zauderer* review regardless. With regard to irreparable harm and the balance of equities: "loss of First Amendment freedoms, for even minimal periods of time, unquestionably constitutes irreparable injury," *Elrod v. Burns*, 427 U.S. 347, 373 (1976) (plurality); and any adverse consequences for the SEC and the public would be limited because a stay would leave the bulk of the SEC's rule (including the disclosure obligations) in place, affecting only the requirement to use a particular phrase. The court perhaps could enter a stay on its own motion, *see* Fed. R. App. P. 2; *Deering Milliken, Inc. v. FTC*, 647 F.2d 1124, 1129 (D.C. Cir. 1978) ("balance of the equities" favors a stay "so much so that we should act sua sponte"), or at least could invite submissions from the parties on the desirability of a stay or order the SEC to show cause why one should not be granted.

It bears noting that there would be no evident need to stay any part of the statute, as opposed to the SEC's rule. The Exchange Act requires covered manufacturers to list products qualifying as "not DRC conflict free" under the statutory definition. 15 U.S.C. § 78m(p)(1)(A)(ii); *see id.* § 78m(p)(1)(D). The Act, however, contains no mandate to use any magic words when categorizing those products. Congress elected to use the descriptor, "not DRC conflict free," in the Act, *id.* § 78m(p)(1)(A)(ii), but Congress imposed no requirement for manufacturers to use that (or any) particular phrase when describing their products. The latter obligation comes from the SEC's rule, not the statute. The rule, moreover, compels use of the phrase, "not been found to be 'DRC conflict free'"—rather than "not DRC conflict free"—an adjustment viewed by the agency to ameliorate any First Amendment objections by allowing for a more "accurate disclosure." 77 Fed. Reg. at

56,323. If the court were to withhold a decision on the Association's First Amendment claim pending the en banc court's decision in *American Meat*, but were to grant temporary relief to the Association in the interim, any stay order presumably would run against the SEC's rule (not the statute) and would correspond to the particular disclosure compelled by that rule.

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Federal Appeals Court Holds Securities and Exchange Commission (SEC) Conflict Minerals Rules Violate Free Speech

Reporting Obligations Uncertain as Final Outcome Likely to be Months Away

On April 14, 2014, a three-judge panel of the U.S. Court of Appeals for the District of Columbia, in an opinion authored by Senior Circuit Judge Randolph, held in ***National Association of Manufacturers, et al. v. Securities and Exchange Commission**, et al.* (Case No. 13-5252), that portions of the SEC's controversial **"Conflict Mineral Rules"** adopted under the Securities Exchange Act of 1934, as amended, and mandated by the Dodd-Frank Act "violate the First Amendment to the extent the [Dodd-Frank] statute and rule require regulated entities to report to the Commission and to state on their website that any of their products have "not been found to be 'DRC conflict free.'" Noting, among other things, the general humanitarian purpose behind the statute and the desired effects of Congress' policy choices, the court rejected broader challenges to the Conflict Minerals Rules that asserted the SEC was "arbitrary and capricious" in its rulemaking by not, for example, including a *de minimis* exception for small amounts of minerals in products. As a result, the Court of Appeals reversed, in part, the district court decision that was the subject of the appeal and remanded the case for further proceedings.

The statute and the Rules require SEC-reporting companies that manufacture or contract to manufacture products containing "conflict minerals" (tin, tantalum, and tungsten and their derivatives, and gold) to undertake supply chain diligence to determine if any of the minerals were sourced from smelters or refiners in the Democratic Republic of Congo or adjoining nations that finance or contribute to, directly or indirectly, militant activities or human rights abuses in the region. Companies are then required to report their findings on a calendar-year basis, with the first report on Form SD due May 31, 2014. Industry cost estimates for the initial compliance undertaken by companies throughout the supply chain have been as high as $16 billion.

The court's decision comes as no surprise given that the court's focus on the free speech challenge to the rules and related statutory provisions consumed most of the oral argument held on January 7, 2014. Attorneys for appellants, National Association of Manufacturers, argued that the offending language in the Rules was akin to a "shaming statute" branding companies with a "scarlet letter" in violation of the First Amendment to the extent they were required to publicly disclose in SEC filings and on their website that certain of their products were "not found to be DRC conflict free."

SEC reporting companies are undoubtedly wondering what this means for the upcoming initial compliance deadline at the end of May. Unfortunately, no immediate reprieve from their diligence and disclosure undertakings is in sight unless the SEC voluntarily acts to stay the Rules' application. The court's decision is subject to a number of procedural complexities that will likely delay the decision from becoming final for some time. In particular, the court ordered that the mandate to the D.C. District Court to conduct further proceedings be withheld until seven days after the disposition

of any petition for rehearing or a rehearing *en banc* by the full D.C. Court of Appeals. Although the parties have 45 days to petition for a rehearing or rehearing *en banc*, the SEC may decide to quickly petition the court for rehearing *en banc* and seek consolidation of the case with a pending *en banc* appeal in the D.C. Circuit, *American Meat Institute v. United States Department of Agriculture* (Case No. 13-5281), in which oral argument is set for May 19, 2014. The issues in that case include a similar, although not identical, First Amendment question. Broadly, the debate revolves around the extent to which the federal government can mandate speech under the rubric of commercial regulation. As a related and potentially outcome-determinative sub-issue, the court will likely address the appropriate standard of review in such First Amendment cases, as to which the case law is not fully settled. Both the substantive and procedural issues could well lead to either National Association of Manufacturers or American Meat Institute (or both) being heard by the United States Supreme Court.

Indeed, the D.C. Circuit's opinion in this case invites the parties to seek to participate in the pending *en banc* case. Rejecting the approach suggested in Circuit Judge Srinivasan's concurring opinion (that is, to withhold a ruling on the First Amendment issue until after the *en banc* decision in the *American Meat Institute* case is announced), the majority stated in a footnote that issuing its opinion now would allow the parties to participate in the pending *en banc* case (and also raised the possibility of consolidating the cases for *en banc* consideration).

There is, accordingly, a significant likelihood that a final decision in this case will not come until after the *en banc* court issues a decision on the First Amendment issue and, depending upon the holding in that decision, there could be further proceedings in this case. Hence, it is unlikely that a final resolution will be forthcoming for several months.

In the interim, the National Association of Manufacturers could file a motion in the D.C. Circuit for a stay of the Conflict Mineral Rules pending a final determination of the Rules' validity. The concurring opinion appears to invite such a request. Also, the SEC could voluntarily stay the application of the Rules, including the initial compliance deadline. In the absence of a stay, the SEC would be wise to issue guidance to reporting companies as to how to comply with the Rules given the uncertainty created by the court's decision. Until any guidance is available, however, reporting companies should continue with their conflict mineral diligence and report preparation.

About the Author

Barbara A. Jones
Shareholder

Barbara Jones is a shareholder in Greenberg Traurig's Corporate and Securities practice group and a member of the Global practice group and the Emerging Technologies Team. Barbara maintains a

Commissioners Daniel M. Gallagher and Michael S. Piwowar

April 28, 2014

On April 14, 2014, the D.C. Circuit decided that requiring issuers to describe certain of their products as not DRC conflict free violated the First Amendment.[1] It remanded the case to the district court to determine how much of the Commission's conflict minerals rule is therefore unconstitutional. We believe that the entirety of the rule should be stayed, and no further regulatory obligations should be imposed, pending the outcome of this litigation. Indeed, a stay should have been granted when the litigation commenced in 2012.

A full stay is essential because the district court could (and, in our view, should) determine that the entire rule is invalid.

First, the First Amendment concerns permeate all the required disclosures, not just the listing of products that have not been determined to be DRC conflict free. As the D.C. Circuit noted, an issuer is required "to tell consumers that its products are ethically tainted, even if they only indirectly finance armed groups."[2] A limited modification to our rule eliminating the requirement to declare certain products as "not DRC conflict free" would fail to fully address the First Amendment violation. For example, the fact that an issuer would still be required to include a description of its due diligence procedures in its reports would suggest that the issuer may have "blood on its hands" for its products since it is sourcing certain minerals from the DRC. Moreover, current staff guidance restricts an issuer from stating that its products are not indirectly financing or benefiting armed groups in the DRC in the absence of a costly independent private sector audit report.[3]

Second, even assuming that the due diligence disclosures standing alone do not implicate First Amendment concerns, we believe that the "name and shame" approach is at the heart of not only the Commission's rule, but of Section 1502 of the Dodd-Frank Act itself. The disclosures about the due diligence process are not themselves sufficient to achieve the benefits that Congress sought to advance. Rather, it is the listing of products—the apotheosis of the diligence process—that is central to the rule. Thus, disclosures about the due diligence process should not be seen as severable from the unconstitutional scarlet letter of not DRC conflict free.

A finding that the entire rule is invalid, and that the invalidity is rooted in the statute, would permit Congress to reconsider whether Section 1502 achieves the benefits that it was supposed to attain. Unfortunately, the evidence is that it has been profoundly counterproductive, resulting in a de facto embargo on Congolese tin, tantalum, tungsten, and gold, thereby impoverishing approximately a million legitimate miners who cannot sell their products up the supply chain to U.S. companies.[4] Reconsidering Section 1502's core approach would also save investors billions of dollars in compliance costs,[5] and ease the problem of information overload by eliminating special interest disclosures that are immaterial to investment decisions.

Perhaps the District Court will not ultimately agree with us, and will permit some portion of the Commission's rule to continue in force. But given the uncertainty, the wisest course of action would be for the Commission to stay the effectiveness of the entire rule until the litigation has concluded. Marching ahead with some portion of the rule that might ultimately be invalidated is a waste of the Commission's time and resources—far too much of which have been spent on this rule already—and a waste of vast sums of shareholder money. A full stay of the effective and compliance dates of the conflict minerals rule would not fix the damage this rule has already caused, but it would at least stanch some of the bleeding.

[1] Nat'l Ass'n of Mfgrs v. SEC, No. 13-5252 (D.C. Cir. Apr. 14, 2014).

[2] Id. at 20.

[3] Division of Corporation Finance, Frequently Asked Questions on Conflict Minerals, *available at* http://www.sec.gov/divisions/corpfin/guidance/conflictminerals-faq.htm (Question 15).

[4] See, e.g., *The Unintended Consequences of Dodd-Frank's Conflict Minerals Provision*, Hearing before the Subcommittee on Monetary Policy and Trade of the U.S. House Committee on Financial Services, No. 113-23 (May 21, 2013).

[5] The Commission estimated compliance costs at $3-4 billion for initial compliance, and $207-609 million per year thereafter. See Rel. 34-67716, *Conflict Minerals* (Aug. 22, 2012) at 302.

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HIGH-FREQUENCY TRADING: A REGULATORY STRATEGY

Charles R. Korsmo *

INTRODUCTION

The events of May 6, 2010 took high-frequency trading from the edges of public consciousness to being front page news. American stock markets had opened that morning to unsettling rumblings from Europe. The previous day had seen violent protests in Greece against proposed austerity measures designed to avert a default on Greek government debt.[1] The ongoing riots seemed likely to scupper a proposed European Union bailout of Greece, potentially touching off a chain-reaction debt crisis with disastrous consequences for the entire euro zone.[2] Given these inauspicious augurs, it is hardly surprising that investor sentiment was somewhat jumpy and decidedly gloomy for much of the day.[3] Over the course of the morning, prices slid in increasingly volatile trading. By 1:00 p.m.,[4] the Standard & Poor's 500 ("S&P 500"), a well-known index of stock prices for 500 top American companies, had

* Assistant Professor, Case Western Reserve University School of Law. J.D., Yale Law School. I am grateful to Dean Lawrence Mitchell for research support. All errors are my own.

1. *See* STAFFS OF THE CFTC & SEC, FINDINGS REGARDING THE MARKET EVENTS OF MAY 6, 2010, at 1, 9 (2010), *available at* http://www.sec.gov/news/studies/2010/marketevents-report.pdf [hereinafter SEPTEMBER CFTC-SEC STAFF REPORT]; Dina Kyriakidou, Analysis: Greek Riots to Weaken Resolve for Measures, Reuters (May 6, 2010), http://www.reuters.com/article/2010/05/06/us-greece-violence-analysis-top-idustre6443ga20100506.

2. The increasing fear of a euro zone meltdown was evidenced by increased prices for credit default swaps offering protection against potential defaults on European government debt. *See* STAFFS OF THE CFTC & SEC, PRELIMINARY FINDINGS REGARDING THE MARKET EVENTS OF MAY 6, 2010, at 11 (2010), *available at* http://www.sec.gov/sec-cftc-prelimreport.pdf [hereinafter MAY CFTC-SEC STAFF REPORT].

3. *See* SEPTEMBER CFTC-SEC STAFF REPORT, *supra* note 1, at 1 ("May 6 started as an unusually turbulent day for the markets.").

4. All times are Eastern Standard Time.

fallen by about 1%[5]—a significant drop, to be sure, but not yet particularly alarming.

Around 1:00 p.m., the dollar value of the Euro started to decline precipitously, and the sell-off in the broader market began to accelerate.[6] The volatility of stock prices increased sharply, triggering automatic slowdowns in trading for numerous stocks traded on the New York Stock Exchange ("NYSE").[7] By 2:00 p.m., the S&P 500 had fallen a total of 2.9% for the day.[8] Such a large drop is unusual, and undoubtedly cause for consternation, but was nowhere near as severe as the multiple 5%+ daily swings seen at the height of the 2008 financial crisis.[9] Few would have guessed that the stage was now set for the most extraordinary hour in the history of the American stock market.

At 2:32 p.m., the fall in prices again began to pick up steam, with the broad markets dipping another 1% to 2% in less than ten minutes.[10] Then, at 2:41 p.m., the markets went careening entirely off the rails. In less time than it takes to soft-boil an egg, the markets took a sickening plunge of more than 5%, so that by 2:45 p.m. markets were down nearly 10% for the day.[11] One trillion dollars in wealth had apparently melted away over the course of the day, with more than $500 billion in market capitalization evaporating into thin air in less than five minutes.[12]

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5. *See* MAY CFTC-SEC STAFF REPORT, *supra* note 2, at 11 & fig. 1.

6. SEPTEMBER CFTC-SEC STAFF REPORT, *supra* note 1, at 1.

7. As discussed more fully below, the NYSE employs automated "circuit breakers" that slow down trading for a given security when price volatility for that security exceeds certain thresholds. Kristina Peterson, *Programs, NYSE Circuit Breakers Contribute to Market Plunge*, WALL ST. J. MARKET WATCH (May 6, 2010), http://www.marketwatch.com/story/programs-nyse-circuit-breakers-contribute-to-market-plunge-2010-05-06-193500/. These slowdowns are intended to act as a "speed bump," preventing a stampede that might overwhelm available liquidity—the ready supply of buyers and/or sellers—and are thus known as "Liquidity Replenishment Points" ("LRPs"). *See* SEPTEMBER CFTC-SEC STAFF REPORT, *supra* note 1, at 68. Beginning at around 1:00 PM on May 6, 2010, the number of LRPs triggered began to increase dramatically, at first to several times larger than normal and ultimately reaching nearly 100 times the normal level. *See* MAY CFTC-SEC STAFF REPORT, *supra* note 2, at 22–23.

8. SEPTEMBER CFTC-SEC STAFF REPORT, *supra* note 1, at 11.

9. *Historical Index Data*, WALL ST. J., http://online.wsj.com/mdc/public/page/2_3047-djia_alltime.html (detailing the largest percent losses and largest point losses in one day on the Dow Jones Industrial Average).

10. SEPTEMBER CFTC-SEC STAFF REPORT, *supra* note 1, at 9.

11. *Id.*

12. *See* Edward E. Kaufman Jr. & Carl M. Levin, *Preventing the Next Flash Crash*,

What happened next was just as extraordinary. At 2:45 p.m., the broad market began to rebound almost as sharply as it had plummeted, and by 3:00 p.m. the S&P 500 had regained almost all of the ground lost over the past hour.[13] Over the same fifteen minutes, individual stocks traded wildly, with huge and evidently illogical price swings. Proctor & Gamble—a blue-chip component of the benchmark Dow Jones Industrial Average ("DJIA")—dropped by 36% in less than four minutes, and then fully recovered in less than a minute.[14] 3M experienced a similarly rapid collapse and recovery.[15] Accenture, a multi-billion dollar consultancy firm, saw its stock price fall from $40 per share to a penny in a matter of seconds, and then rocket back to $40 just as quickly.[16] Shares of Apple, which had been trading at around $250 per share, changed hands at the outlandish price of $100,000 per share.[17] Hundreds of other securities experienced similar chaos.[18] The markets shuddered up and down for the next hour, returning to orderly trading, and finally closing at 4:00 p.m. down 3%—back to about where they had been at 2:30 p.m.[19] The entire roller-coaster ride is shown in Figure 1.

N.Y. TIMES, May 6, 2011, at A27; SEPTEMBER CFTC-SEC STAFF REPORT, *supra* note 1, at 4.

13. SEPTEMBER CFTC-SEC STAFF REPORT, *supra* note 1, at 9.

14. *Id.* at 84.

15. *Id.* at 85.

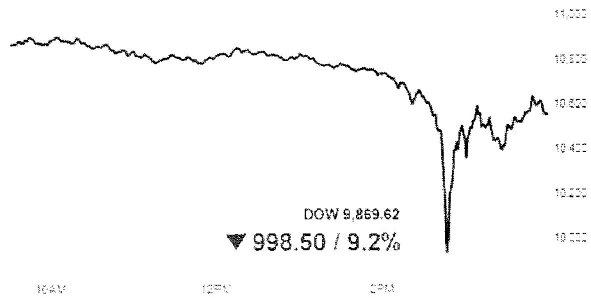
16. *Id.* at 83.

17. *Id.* at 86; *Apple Inc. (AAPL) Historical Prices*, YAHOO! FINANCE, http://finance.yahoo.com/q/hp?s=AAPL.

18. *See* Henry T.C. Hu, *Too Complex to Depict? Innovation, "Pure Information," and the SEC Disclosure Paradigm*, 90 TEX. L. REV. 1601, 1703 (2012) ("Between 2:40 PM and 3:00 PM, over 20,000 trades across more than 300 securities were executed at prices 60% or more away from 2:40 PM prices.").

19. SEPTEMBER CFTC-SEC STAFF REPORT, *supra* note 1, at 1, 6.

Figure 1: The Flash Crash



After the markets closed, a single question was on everyone's lips: What just happened? Observing the general market collapse around 2:45 p.m., many professional traders simply assumed that something catastrophic, like a major terrorist attack, must have happened—but no cataclysm had occurred.[20] Nothing much at all had happened in the real world. Certainly nothing had happened that would make it reasonable to believe that American companies were worth $1 trillion less one minute, and then $1 trillion more fifteen minutes later.[21]

The markets had seen dramatic and unexplained declines before, but never before so rapid. Most notably, the "Black Monday" crash of October 19, 1987 saw markets fall more than 20% in a single day, with no obvious news "trigger" for the collapse.[22] But

20. *Id.* at 4–5 ("[A] number of [market] participants reported that because prices simultaneously fell across many types of securities, they feared the occurrence of a cataclysmic event of which they were not yet aware . . . .").

21. That great repository of human experience, YouTube, has preserved for posterity the live coverage from the day, which reveals an amusing mélange of uninformed speculation, blinking incomprehension, and stark terror. Jim Cramer, appearing on CNBC, seems almost relaxed throughout the episode—a sure sign that something is seriously amiss. *See* FLASH CRASH! *Dow Jones Drops 560 Points in 4 Minutes! May 6th 2010*, YOUTUBE, http://www.youtube.com/watch?v=86g4_w4j3jU (last visited Dec. 6, 2013).

22. Hu, *supra* note 18, at 1702–03; *see* Jerry W. Markham & Rita McCloy Stephanz,

the Black Monday crash and other smaller "market breaks" differed from the May 6, 2010 fiasco—which has come to be known as the "Flash Crash"—in that in previous crashes, the markets did not experience an immediate rebound.[23] Markets did not regain their previous highs until nearly two years after the 1987 crash.[24] The fact that markets had largely bounced back within twenty minutes of the 2:45 p.m. nadir made the Flash Crash all the more mysterious.[25]

Initial suspicions focused on the possibility of a "fat finger" trade—that a large investor might have mistakenly entered a "B" for "billion" instead of an "M" for million when entering a sell order, triggering a chain reaction of price declines.[26] However disconcerting the idea that a simple typo could cause such turmoil, the other alternatives were no less troubling. After the "fat finger" explanation was ruled out, suspicion turned to the new, highly computerized and heavily automated structure of the modern American markets. In particular, the Flash Crash cast a powerful spotlight upon the activities of so-called high-frequency traders ("HFTs").[27] Such traders use high-speed computers to execute rapid-fire trades, usually without real-time human involvement, and

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The Stock Market Crash of 1987—The United States Looks at New Recommendations, 76 GEO. L.J. 1993, 1993 (1988) ("New York Stock Exchange (NYSE) stocks lost $1 trillion in value and the Dow Jones Industrial Average plunged 508 points in a day . . . known as Black Monday.") (citations omitted).

23. *See* Mark Carlson, *A Brief History of the 1987 Stock Market Crash with a Discussion of the Federal Reserve Response* 10 (Fin. And Econ. Discussion Series, Fed. Reserve Bd., Working Paper, 2006), *available at* http://www.federalreserve.gov/pubs/feds/2007/200713/200713pap.pdf (stating that trading on Tuesday, October 20, 1987 was "significantly impaired").

24. *See* Marsha Meyer & Prashanta Misra, *What, Me Worry About an All-Time Stock Market High?*, CNNMONEY (Oct. 1, 1989), http://money.cnn.com/magazines/moneymag/moneymag_archive/1989/10/01/85385/index.htm ("By the end of August [1989] it had begun to look just like the good old pre-crash days.").

25. Perhaps the closest parallel to the Flash Crash was May 28, 1962, when the market plummeted 5.7% in a single day, only to gain back 4.7% the very next day. H.R. DOC. NO. 88-95, pt. 4, at 832, 834 (1963).

26. David Easley et al., *The Microstructure of the "Flash Crash": Flow Toxicity, Liquidity Crashes and the Probability of Informed Trading*, 37 J. PORTFOLIO MGMT., no. 2, 2011, at 118; Matt Phillips, *SEC's Schapiro: Here's My Timeline of the Flash Crash*, WALL ST. J. (May 20, 2010), http://blogs.wsj.com/marketbeat/2010/05/20/secs-schapiro-heres-my-timeline-of-the-flash-crash/; see *Fat Finger Error*, INVESTOPEDIA, http://www.investopedia.com/terms/f/fat-finger-error.asp.

27. The abbreviation "HFTs" will be used throughout to refer to the high-frequency traders who engage in to the act of high-frequency trading. "HFT" will be used to refer to the general phenomenon of high-frequency trading.

have, in a matter of only a few years, gone from non-existent to conducting perhaps a majority of all trades on public securities markets.[28]

High-frequency trading ("HFT") is controversial. HFTs have largely driven out traditional market makers, disrupting longstanding methods of assuring liquidity on public securities markets.[29] HFT may involve manipulative or parasitic trading strategies.[30] The speed and technological sophistication of HFTs may give them advantages over other traders, generating an appearance of unfairness and leading less sophisticated parties to avoid investing in the markets. The sheer volume of trades entered by HFTs can overwhelm market systems, leading to slowdowns and imposing costs on other market participants.[31] The lack of direct human oversight raises the specter of "rogue" algorithms.[32] In many of these regards, however, HFT is not unique and does not pose fundamentally different risks than other market activities.[33]

The most troubling risk associated with HFT, which has generated widespread concern, is that HFTs will inadvertently—or even deliberately—cause extreme volatility events such as the Flash Crash. The evidence is surprisingly mixed as to whether HFT has, in fact, led to an increased incidence of extreme volatility,[34] but this suspicion or fear has led to a welter of proposed reforms and regulations.[35] Because of the relative novelty of HFT,

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28. SEPTEMBER CFTC-SEC STAFF REPORT, *supra* note 1, at 45.

29. *See* Tom C.W. Lin, *The New Investor*, 60 U.C.L.A. L. REV. 678, 689–92 (2013); Scott S. Powell & Rui Gong, *Wall Street's New Race Toward Danger*, BARRON'S, March 8, 2010, at W45.

30. *See* Concept Release on Equity Market Structure, Exchange Act Release No. 34-61,358, 75 Fed. Reg. 3594, 3608–09 (Jan. 21, 2010) [hereinafter SEC Concept Release].

31. *See* Wallace Turbeville, *Reign of the High-Frequency Trading Robots*, U.S. NEWS & WORLD REPORT (Oct. 18, 2013), *available at* http://www.usnews.com/opinion/blogs/economic-intelligence/2013/10/18/how-high-frequency-trading-is-taking-over-markets.

32. *See* Alyse L. Gould, *Regulating High-Frequency Trading: Man v. Machine*, 12 J. HIGH TECH. L. 273, 280–81 (2011).

33. *See infra* Part III.

34. *See* SEC Concept Release, *supra* note 30, at 3603.

35. *See, e.g.*, Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, Pub. L. No. 111-203, § 967(a)(2)(D), 124 Stat. 1376, 1913 (2010) [hereinafter Dodd-Frank Act] (requiring a study into the effect of HFT practices on the market); SEPTEMBER CFTC-SEC STAFF REPORT, *supra* note 1, at 7.

however, a consensus approach to dealing with the associated risks has yet to develop.

This article considers how to regulate the risks associated with HFT. This endeavor requires a thoughtful balancing of competing considerations.[36] The fact is often overlooked by critics, but HFT often benefits retail investors and markets as a whole.[37] Any regulatory scheme should be carefully designed so as not to jeopardize these benefits, which may be substantial. At the same time, regulation is necessary to ensure that HFT does not destabilize public markets, and that the public does not believe that HFT has destabilized the markets. While the benefits of HFT are vulnerable to regulatory overkill, widespread fear of HFT could lead retail investors to avoid public securities markets if regulation is seen to be insufficient. Maintaining the benefits of HFT, therefore, requires regulation that carefully addresses the real risks—reassuring the public without deterring socially beneficial trading activities.

The regulatory challenge is made all the more difficult by the fact that HFT is an inherently moving target. As explained below, there is seldom a clear line between HFT and other automated market activity. Furthermore, HFTs are protean in nature, introducing new trading strategies and algorithms on a continuous basis.[38] Consequently, regulatory responses must be dynamic, generating and responding to new information in real time, and stimulating market participants to minimize risks themselves. Aiding regulators in this last respect is that many of the most salient risks of HFT are borne, at least in the first instance, by the HFTs themselves or by other sophisticated market participants.[39]

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36. This article seeks to do for HFT what Merrill and Schizer have recently done for hydraulic fracturing, or "fracking." *See generally* Thomas W. Merrill & David M. Schizer, *The Shale Oil and Gas Revolution, Hydraulic Fracturing, and Water Contamination: A Regulatory Strategy*, 98 MINN. L. REV. 145, 149–50 (2013). Though the topics are, obviously, quite different, this article utilizes a structure and style of analysis quite similar to that employed by Merrill and Schizer.

37. *See* Lin, *supra* note 29, at 692–93, 725.

38. Gould, *supra* note 32, at 281; Michael J. McGowan, Note, *The Rise of Computerized High Frequency Trading: Use and Controversy*, 2010 DUKE L. & TECH. REV. 16, ¶18; Paul Springer, *HFT & Algo Get Tougher for Traders Large & Small*, TRADER DAILY (Mar. 23, 2011), http://www.traderdaily.com/03/hft-algo-get-tougher-for-traders-large-small/.

39. *See infra* Part III.A.

Accordingly, the regulatory strategy proposed here consists of four prongs. The first crucial step is to ensure that reliable information regarding HFT is generated in close to real time. In the wake of the Flash Crash, investigators required months to even partially reconstruct trades and orders that had occurred over the course of a few hours.[40] A consolidated audit trail would allow regulators to rapidly reconstruct all trading activity and identify the parties responsible for each order. Such a system would enable quick investigation of unusual market events and, if appropriate, the reliable assignment of liability to the responsible parties. It would also provide a valuable source of data for identifying emerging risks and designing new regulatory strategies to address those risks.

The second regulatory prong is an evolving body of best practices regulation designed to reduce the systemic risks posed by HFT. These regulations should be designed to ensure that both HFTs themselves and other large market participants—operators of securities exchanges such as the NYSE and NASDAQ, in particular—follow best practices. Best practices regulation has at least two advantages over other potential regulatory strategies. First, although it may not be entirely nonintrusive, best practices regulation provides market participants with a degree of stability and certainty. Given the large investments in technology and human capital required for HFT, a relatively stable and predictable regulatory regime is necessary. Second, even where it is not optimal, best practices regulation provides some reassurance to the public that regulators are focused on the relevant risks and are requiring the use of state-of-the-art safeguards.

Best practices regulation has, of course, some limitations. In a fast-changing field like HFT, where the risks are not yet fully understood, the body of regulations must necessarily remain incomplete for the foreseeable future. In addition, best practices regula-

40. *See* Jonathan Spicer et al., *Insight: SEC Tightens Leash on Exchange Post "Flash Crash*," REUTERS, Jan. 12, 2012, *available at* http://www.reuters.com/article/2012/01/12/us-sec-exchanges-leash-idustre80b1ya20120112 (noting that regulators delayed a report on the crash almost five months to gather more data); Gregg E. Berman, Senior Advisor to the Div. Trad. & Mkts., SEC, Speech by SEC Staff at the Annual SIFMA Concept Conference (Oct. 13, 2010), *available at* http://www.sec.gov/news/speech/2010/spch101310geb.htm (describing the difficulty of obtaining trading data from May 6, 2010 in the months after the crash).

tion can be difficult to enforce. If oversight is ineffective and penalties are insufficient, best practices regulation can offer only limited protection. The information-gathering function of the first prong is thus crucial to the effective functioning of the second.

The third prong is to strengthen liability for HFTs and those who sponsor their access to their markets, in order to ensure that they are able to make good on the obligations they incur from their trading activities. Few things are more destructive to the functioning of public securities markets than the introduction of significant counterparty risk—that is, the risk that the party on the other side of the trade will be unable or unwilling to fulfill their contractual obligations to pay money or transfer securities.[41] HFTs and their facilitators must be required to demonstrate that they have the financial wherewithal to make good on any obligations their algorithms—even unintentionally—cause them to incur.

Finally, these regulatory measures should be backstopped by improved circuit breakers designed to temporarily halt trading in individual securities during periods of unusual volatility. Improved circuit breakers are already in the process of being implemented for most securities, and should help to limit the scope of any harm caused by rogue HFTs.[42]

To help ensure that regulation of HFT does not interfere with the move to a national market system, this article recommends that the regulatory center of gravity remain in the U.S. Securities & Exchange Commission ("SEC"), the only agency with the scope and expertise to oversee such activity. In order to help oversight remain dynamic and innovative, however, as much flexibility as possible should be given to the operators of securities exchanges. Exchange operators have a strong economic incentive to protect the integrity of the trading on their exchanges in order to attract trading volume and increase profits. This economic incentive should be preserved to the extent possible, such that competitive

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41. Jeremy C. Kress, *Credit Default Swaps, Clearinghouses and Systemic Risk: Why Centralized Counterparties Must Have Access to Central Bank Liquidy*, 48 HARV. J. LEGIS. 49, 55–56 (2011).

42. Order Granting Accelerated Approval to Proposed Rule Changes Relating to Trading Pauses Due to Extraordinary Market Volatility, Exchange Act Release No. 34-62,252, 98 SEC Docket 2160 (June 10, 2010).

pressure will help to drive development of cost-effective safeguards. Private sector actors are likely to be more nimble in regulatory innovation, as well.

This article presents the first broad-view examination of HFT in the legal literature, and one of the first categorizations of the various potential dangers associated with such trading and with the modern electronic market structure in general.[43] The article proceeds in seven parts. Part I provides a brief introduction to HFT, and to the structure of the modern securities markets. Part II summarizes the economic benefits of HFT—including the substantial benefits to small investors. Part III identifies and categorizes a number of potentially regulation-justifying dangers and harms associated with HFT that are either not unique to HFT or that can be best addressed by private actors. Part IV considers the risks of increased volatility and public loss of confidence associated with HFT. Part V offers a general framework for choosing a regulatory strategy and uses it to critique regulatory proposals put forth by various academics and industry participants and suggests a superior regulatory approach to HFT. Part VI fleshes out the proposed regulatory strategy, including the use of liability and circuit breakers. Part VII discusses implementing this regulatory strategy, including the proper role of private sector actors such as exchange operators.

I. HIGH-FREQUENCY TRADING AND THE MODERN MARKET

A. *The Structure of the U.S. Securities Markets*

In order to understand the mechanics and strategies involved in HFT, it is necessary to have at least a rudimentary picture of the structure of the U.S. equity markets. Until the 1970s, trading stocks and other securities in the United States almost always involved, at the end of the day, a face-to-face transaction. Stocks

43. *See, e.g.*, Didier Sornette & Susanne Von der Becke, *Crashes and High Frequency Trading: An Evaluation of Risks Posed by High-Speed Algorithmic Trading* 5 (Swiss Finance Institute, Research Paper, No. 11-63, 2011), *available at* http://ssrn.com/abstract=1976249 ("Being a fairly new phenomenon, academic research on this subject is still limited in numbers and to some extent inconclusive with respect to potential risks posed by HFT."). Rather than an attempt at comprehensive evaluation, Sornette and Von der Becke focus primarily on the liquidity effects of HFT.

and related securities were listed and traded largely on a single exchange, and orders would be sent to a registered member of the exchange for execution through a dedicated individual—a specialist—who would manually book trades on the trading floor.[44] This began to change in 1971, when the National Association of Securities Dealers created the National Association of Securities Dealers Automated Quotations ("NASDAQ") system, the first securities market to use a computerized system for matching buyers and sellers.[45] From that point on, markets have seen increasing computer automation in the execution of trades and, more recently, on the investors' side in the placement of the orders themselves.[46]

Change has been especially rapid over the past decade. As late as 2006, stocks listed on the NYSE—which account for approximately three-fourths of the market capitalization of companies listed on U.S. exchanges—were still traded primarily manually on the NYSE's Wall Street trading floor.[47] In part due to changing technology, and in part due to new SEC regulations intended to foster greater competition between exchanges (known as "Regulation NMS" for "national market system"),[48] the NYSE instituted a fully automated quotation system in October 2006, which began to displace manual trading.[49] The result has been a dramatic shift in patterns of trading. In 2005, nearly 80% of trading volume in NYSE-listed stocks took place on the NYSE.[50] By 2009, as trading became fragmented among competing trading venues, that figure dropped to only 25%.[51] At the same time, the volume of trades skyrocketed, and the average speed with which orders could be

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44. *See* SEC Concept Release, *supra* note 30, at 3594.

45. *See, e.g.*, Peter Gomber et al., High-Frequency Trading 8 (Mar. 2011) (unpublished manuscript), *available at* http://ssrn.com/abstract=1858626; *What is NASDAQ?*, NASDAQ, http://www.nasdaqomx.com/aboutus/company-information/whatisnasdaq.

46. *See* Gomber et al., *supra* note 45, at 6, 8.

47. SEC Concept Release, *supra* note 30, at 3594.

48. *See* Regulation NMS Release No. 34.51808, 70 Fed. Reg. 37,496, 37,496–98 (June 29, 2005) [hereinafter Regulation NMS Release].

49. SEC Concept Release, *supra* note 30, at 3594–95.

50. *See id.* at 3613; Peter Coban, *Does It Matter That A German Exchange May Control the NYSE?*, DAILY FIN. (Feb. 10, 2011), http://www.dailyfinance.com /2011/02/10/nyse-deutsche-boerse-merger-stock-exchange-germany/; Aaron Lucchetti, *Niederauer's First Challenge: NYSE Floor Traders' Future*, WALL ST. J. (Nov. 21, 2007), http://online.wsj.com /news/articles/SB119561394296900182.html.

51. SEC Concept Release, *supra* note 30, at 3595.

executed fell from more than ten seconds to a fraction of a second.[52]

During this period, trading activity has spread across a number of dispersed trading venues, and the venues themselves have begun to function in an entirely automated fashion.[53] The majority of this trading occurs on a handful of official exchanges that are registered with the SEC and electronic communication networks ("ECNs") that function much like traditional exchanges but are regulated somewhat differently.[54] Both types of exchanges typically use what are called "central limit order books" which make available to all market participants a continually updated list, or "book," of outstanding offers to buy (bids) or sell (offers) at various prices.[55]

A substantial fraction of trades, however—in the neighborhood of a quarter—take place in somewhat less transparent forums.[56] When a large investor attempts to buy or sell a large block of shares, the mere fact that they are doing so—if revealed in the limit order book—can cause the price of those shares to move against them.[57] This can occur for a number of reasons. Other market participants might believe that the large trader has new information about the value of the security in question, and adjust their own estimates in response. Less innocently, the large trader might fall victim to other traders "front-running" the large order, a practice described below.[58] To minimize this risk, many institutional investors conduct at least some of their trading on

52. *Id.* at 3595–96. Trading on other exchanges can be even faster. Even three years ago, NASDAQ was reporting an average time to accept, process, and fill an order of only 294 microseconds. *Id.* at 3598 n.25.

53. *Id.* at 3594.

54. *Id.* at 3597–99.

55. *See* Gomber et al., *supra* note 45, at 8. For example, the limit order book for ABC stock might show that 100 shares had last changed hands at $10, and that there are 500 shares being offered at $10.01, 300 offered at $10.02, 800 offered at $10.03, and so on. Traders enter into trades in two basic ways. First, they can enter limit orders—resting offers to buy or sell a certain quantity of a security at a certain price, which remain in the limit order book until executed or cancelled—or they can enter market orders—an aggressive order to buy or sell a certain quantity of a security at whatever is the best price currently available in the limit order book. *See* David Kane, Andrew Liu & Khanh Nguyen, *Analyzing an Electronic Limit Order Book*, 3 R. J. 64, 64 (2011).

56. SEC Concept Release, *supra* note 30, at 3598.

57. *Id.* at 3599.

58. *See infra* note 126 and accompanying text.

one or more of several dozen so-called "dark pools" that "offer trading services to institutional investors and others that seek to execute [large trades] in a manner that will minimize the movement of prices against the trading interest and thereby reduce trading costs."[59] In particular, dark pools do not make publicly available their limit order books, thus rendering a large block trade invisible to other market participants until after it has already been executed.[60]

Another phenomenon that leads to somewhat less transparent trading is broker-dealer internalization. A broker-dealer is a person or firm who is "engaged in the business of effecting transactions in securities for the account of others" (brokering) and also "engaged in the business of buying and selling securities for his own account" as a principal (dealing).[61] A trade is said to be "internalized" when a broker-dealer receives an order from a client and executes it either against another client's offsetting order, or by buying or selling the shares directly on their own accounts.[62] In either case, internalized trades, like dark pool trading, can involve liquidity—a supply of willing buyers and sellers—that is not contemporaneously visible on publicly available limit order books.[63]

These dispersed trading venues are linked in several ways. First, Regulation National Market System ("NMS") created a consolidated market data system, designed to provide "a comprehensive, accurate, and reliable source of information for the prices and volumes of any NMS stock at any time during the trading day."[64] This data is "collected and distributed pursuant to a variety of Exchange Act rules and joint-industry plans."[65] In the interests of pre-trade transparency, this data includes "consolidated quotation data" consisting of the best bids and offers in the limit order books of the market players mentioned above, updated in

59. SEC Concept Release, *supra* note 30, at 3599.

60. *See id.*

61. *Guide to Broker-Dealer Registration*, U.S. SECS. & EXCH. COMM'N: DIVISION OF TRADING AND MARKETS (Apr. 2008), http://www.sec.gov/divisions/marketreg/bdguide.htm#II (citing Securities Exchange Act of 1934, 15 U.S.C. §§ 78c(a)(4)(A), (a)(5)(A) (2012)).

62. *See* SEC Concept Release, *supra* note 30, at 3599–3600.

63. *Id.* at 3612.

64. *Id.* at 3600.

65. *Id.*

real time.[66] If a customer does not want their order to be displayed prior to execution—for reasons suggested above—it need not be displayed. Thus, orders placed in dark pools or internalized by a broker-dealer may be kept from appearing in the consolidated quotation data.[67] But orders may not be selectively displayed: "[T]he display of orders to some market participants generally will require that the order be included in the consolidated quotation data that is widely available to the public."[68]

For post-trade transparency, Regulation NMS requires realtime (or close to it) reports of executed trades, or "consolidated trade data."[69] This reporting requirement applies to dark pools and internalized trades as well as to more traditional trades on exchanges.[70] The net result of these requirements, and the systems built to implement them, is that real time quotation and trade data is available to market participants with average latencies measured in milliseconds.[71]

The second major way markets are intertwined is via the SEC's "Order Protection Rule," which requires that any order must be executed at the best price available anywhere in the nation.[72] That is, when a trading center—whether a registered exchange or any of the other types of trading venues mentioned above—receives an order to buy or sell a security, it is required to execute that order at the best price currently listed in the consolidated quotation data.[73] If the trading center is unable or unwilling to

66. *Id.* ("With respect to pre-trade transparency . . . Regulation NMS requires exchange members and [certain other market participants] to provide their best-priced quotations . . . [and] make this information available to vendors.").

67. *Id.* at 3599.

68. *Id.* at 3600.

69. *Id.*

70. *Id.*

71. *Id.* at 3601.

72. *See* Regulation NMS Release, *supra* note 48, at 37,496–97 & n.2. As the SEC notes, the Order Protection Rule

> provides a baseline assurance that: (1) Marketable orders will receive at least the best displayed price, regardless of the particular trading center that executes the order or where the best price is displayed in the national market system; and (2) quotations that are displayed at one trading center will not be bypassed by trades with inferior prices at any trading center in the national market system.

SEC Concept Release, *supra* note 30, at 3601.

73. Regulation NMS Release, *supra* note 48, at 37,504–05.

execute the order at the best price, then it must either cancel and return the order or route it to another trading center displaying the best price.[74] In essence, the Order Protection Rule imposes a mandatory "Home Depot-style" low price guarantee—trading venues are required to match or beat their competitors' prices.

A third way in which markets are linked is through the SEC's requirement of "fair access."[75] The SEC sets limits on fees for access to a trading center's quotation data, and prohibits trading centers from "imposing unfairly discriminatory terms that would prevent or inhibit any person from obtaining efficient access" to the securities being offered.[76]

To summarize, over the past forty years—and particularly over the past eight years—the structure and mechanics of the U.S. equity markets have undergone a radical sea-change. Less than a decade ago, the bulk of trading took place in a handful of venues, and most trades involved direct human intermediation at some stage of the process.[77] The average time to execute a trade was certainly fast by everyday standards, but was still measured on a relatively human scale, in terms of seconds.[78]

Today, trading is widely scattered across a large number of venues of varying characteristics, tied together by the consolidated market data system and the Order Protection Rule.[79] Virtually all trades are executed fully automatically, with no human intermediation on the execution side.[80] Even more remarkably, as discussed below, the majority of trades are now conducted without any human intermediation even on the *order* side—that is, most decisions to buy and sell are made by computer algorithm,

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74. SEC Concept Release, *supra* note 30, at 3601.

75. *Id.* at 3602.

76. *Id.*

77. *See supra* note 44 and accompanying text.

78. *See supra* note 52 and accompanying text.

79. *See supra* note 72 and accompanying text.

80. *See* Hu, *supra* note 18, at 1702 ("In 1975, when Congress directed the SEC to facilitate the establishment of a national-market system to link together the multiple individual markets that trade securities, trading was dominated by exchanges with manual trading floors. Today, the market is dominated by automated trading. Moreover, trading volume is now dispersed—fragmented—among many highly automated trading centers that compete for order flow. By October 2009, the NYSE executed only 25.1% of the consolidated share volume in its listed stocks.").

and executed without prior human oversight.[81] Average execution times are now measured on an inhuman electronic scale, in terms of milliseconds and microseconds.[82]

B. *High-Frequency Trading*

Perhaps the most dramatic outgrowth of the changes described above has been the large-scale emergence of HFT. The phenomenon is new enough that it lacks an authoritative, uncontroversial definition. The first step to understanding what is meant by HFT is to recognize that it is a subset of the broader (and older) phenomenon of algorithmic trading—that is, "[c]omputerized trading controlled by algorithms."[83] In essence, algorithmic trading is simply the use of computers—running specialized software implementing pre-determined decision-making rules—to evaluate market conditions and other data to make trading decisions without the need for human involvement. More expansively:

> In algorithmic trading (AT), [traders'] computers directly interface with trading platforms, placing orders without immediate human intervention. The computers observe market data and possibly other information at very high frequency, and, based on a built-in algorithm, send back trading instructions, often within milliseconds. A variety of algorithms are used: for example, some look for arbitrage opportunities, including small discrepancies in the exchange rates between three currencies; some seek optimal execution of large orders at the minimum cost; and some seek to implement longer- term trading strategies . . . .[84]

One group of researchers has identified the following helpful "common characteristics" of algorithmic trading: (1) the use of pre-designed trading decisions; (2) implementation by professional traders; (3) automated observation of market data in real time; (4) automated order submission; (5) automated order management; (6) lack of pre-trade human intervention; and (7) use of direct market access (in other words, the trader's computer inter-

81. *See infra* Part I.B.

82. *See supra* note 52 and accompanying text.

83. Johannes Prix et al., *Algorithmic Trading Patterns in Xetra Orders*, 13 EUR. J. FIN. 717, 717 (2007).

84. Alain Chaboud et al., *Rise of the Machines: Algorithmic Trading in the Foreign Exchange Market* 1 (Fed. Reserve, Int'l Fin., Discussion Paper No. 980, 2009), *available at* http://www.federalreserve.gov/pubs/ifdp/2009/980/ifdp980.pdf.

faces directly with the exchange's computerized trading system).[85] U.S. regulators have not put forth an official definition of algorithmic trading, but in 2010 the European Commission defined it in broad terms as "the use of computer programmes to enter trading of orders where the computer algorithm decides on aspects of execution of the order such as the timing, quantity and price of the order."[86]

Algorithmic trading is not, in fact, anything new. It has been used for decades to manage orders and execute trading decisions made by actual humans in such a way as to minimize the market impact and cost of making a large trade.[87] Until recently this was probably the most common use for algorithmic trading, and many definitions of algorithmic trading allude to this function.[88] The SEC has referred to this use of algorithmic trading as well, noting that "[m]any brokers also offer sophisticated algorithms that will take the large orders of institutional investors and others, divide a large 'parent' order into many smaller 'child' orders, and route the child orders over time to different trading centers in accordance with the particular trading strategy chosen by the customer."[89] As discussed below, the SEC's favored explanation is that such an algorithm triggered the Flash Crash.

While algorithmic trading is nothing new—particularly algorithmic execution of orders involving human judgment—what is new is the rapid, computerized placement of orders that removes the human element from the decision-making process altogether. Such fully automated systems make possible true HFT, which is thus a subset of algorithmic trading. HFT is characterized by

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85. Gomber et al., *supra* note 45, at 14. The authors provide a helpful appendix listing various academic and regulatory definitions of algorithmic trading. *Id.* at 74–75.

86. European Commission, *Public Consultation: Review of the Markets in Financial Instruments Directive (MiFID)* 14 (European Commission, Working Paper, 2010), *available at* http://ec.europa.eu/internal_market/consultations/docs/2010/mifid/consultation_paper_en.pdf.

87. *See* Chaboud et al., *supra* note 84, at 1; Gomber et al., *supra* note 45, at 13–14.

88. *See* Peter Gomber & Markus Gsell, *Catching Up with Technology—The Impact of Regulatory Changes on ECNs/MTFs and the Trading Venue Landscape in Europe*, 1 COMPETITION & REG. IN NETWORK INDUS. 535, 541 (2006) ("*Algorithmic Trading* emulates a broker's core competence of slicing a big order into a multiplicity of smaller orders and of timing these orders to minimize market impact via electronic means."); Gomber et al., *supra* note 45, at 21 ("Most non-HFT algorithmic strategies aim at minimizing the market impact of (large) orders.").

89. SEC Concept Release, *supra* note 30, at 3602.

very rapid trading at an extremely high volume.[90] While non-HFT users of algorithmic trading may have holding periods "that are minutes, days, weeks, or longer," HFTs "hold their position[s] for a very short horizon and try to close the trading day in a neutral position."[91] In general, HFTs attempt to profit from small, even transient, price moves compounded over huge numbers of trades, rather than seeking to profit from long-term price moves driven by fundamentals, like more traditional investors.[92]

While the SEC has not officially defined HFT, in 2010 they offered the following useful gloss:

> [HFT] is relatively new and is not yet clearly defined. It typically is used to refer to professional traders acting in a proprietary capacity that engage in strategies that generate a large number of trades on a daily basis. These traders could be organized in a variety of ways, including as a proprietary trading firm (which may or may not be a registered broker-dealer . . .), as the proprietary trading desk of a multi-service broker-dealer, or as a hedge fund . . . . Other characteristics often attributed to proprietary firms engaged in HFT are: (1) [t]he use of extraordinarily high-speed and sophisticated computer programs for generating, routing, and executing orders; (2) use of co-location services and individual data feeds offered by exchanges and others to minimize network and otber types of latencies;[93] (3) very

90. *See* Jakvsa Cvitanić & Andrei Kirilenko, *High Frequency Traders and Asset Prices* 2 (Nat'l Sci. Found., Working Paper, 2010), *available at* http://ssrn.com/abstract=1569067 ("[HFT] typically refers to trading activity that employs extremely fast automated programs for generating routing, canceling, and executing orders in electronic markets.").

91. Jonathan A. Brogaard, High Frequency Trading and Its Impact on Market Quality 5 (July 6, 2010) (unpublished thesis, Northwestern University), *available at* http://www.futuresindustry.org/ptg/downloads/HFT_Trading.pdf; *see also* Cvitanić & Kirilenko, *supra* note 90, at 2 ("High frequency traders submit and cancel a massive number of orders and execute a large number of trades, trade in and out of positions very quickly, and finish each trading day without a significant open position."); John D'Antona, Jr., *HFTs Adapting to Stay Profitable*, TRADERS MAG. (Mar. 12, 2012), http://rhlt.com/news_details.aspx?id=191 ("Rosenblatt defines HFT broadly as any strategy that requires very low latency/high capacity technology, makes very small profits per share and trades very large volumes.").

92. An analysis by Rosenblatt Securities, a brokerage firm, suggests that in 2011, HFTs made an average profit of between $0.0005 and $0.00075 per share traded. D'Antona, *supra* note 91.

93. As explained more fully below, "co-location services" refers to when an exchange allows HFTs to locate their computers on-site at the exchange, connecting directly to the exchange's computers. The speed of an electronic signal is limited by the finite speed of light, requiring approximately a nanosecond to travel each foot. The rapidity of HFT is such that the reduction of data-transmission time from co-location—even by a few microseconds, as compared to a computer located a block or more away from the exchange—can often confer an important competitive edge. *See infra* notes 196–200 and accompanying text.

> short time-frames for establishing and liquidating positions; (4) the submission of numerous orders that are cancelled shortly after submission; and (5) ending the trading day in as close to a flat position as possible (that is, not carrying significant, unhedged positions over-night).[94]

A number of different types of market players engage in HFT. Data assembled by the TABB Group—a financial research firm—suggests that a little under half of HFT volume comes from dedicated HFT shops, a little under half comes from the proprietary trading wings of major investment banks (most prominently, Goldman Sachs), and the remainder from a smattering of hedge funds.[95]

Authoritative numbers regarding HFT are hard to come by, but it is clear that in the grander scheme of things, HFT is actually a relatively small industry. All told, a few hundred out of the approximately 20,000 trading firms operating in the United States engage in HFT.[96] Estimates of the profits earned from HFT are likewise sketchy and divergent, with HFTs themselves hesitant to trumpet their results for fear of attracting regulatory attention. Various investigations, however, suggest that net profits from HFT increased from almost nothing ten years ago to a peak of around $5 billion in 2009, before declining sharply to less than $2 billion in 2011 and $1.5 billion in 2012 amid greater competition and changing market conditions.[97] By way of comparison, J.P.

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94. SEC Concept Release, *supra* note 30, at 3606. Gomber and his colleagues offer a similar list of characteristics: (1) very high numbers of orders; (2) rapid placement cancellation of orders; (3) proprietary trading (using the trader's own capital, rather than acting as a broker); (4) an attempt to profit from buying and selling as a middleman; (5) no significant net position at the end of the trading day; (6) very short holding periods; (7) seeking low margins leveraged over many trades; (8) low latency requirements; (9) use of colocation services; and (10) a focus on highly liquid securities. Gomber et al., *supra* note 45, at 15. Again Gomber and his colleagues provide a helpful appendix listing various academic and regulatory definitions of HFT. *Id.* at 74–75 app. II.

95. *See* Gomber et al., *supra* note 45, at 24 ("While consolidated information on the major players in HFT is still scarce, the community of market participants leveraging HFT technologies to implement their trading strategies is highly diverse. Its members range from broker-dealer operated proprietary trading firms and broker-dealer market making operations to specialized HFT boutiques to quantitative hedge funds leveraging HFT technology in order to increase the profits from their investment and trading strategies.").

96. *See* Rob Iati, *The Real Story of Trading Software Espionage*, WALL ST. & TECH. (July 10, 2009), http://wallstreetandtech.com/trading-technology/the-real-story-of-trading-software-espio/218401501.

97. *See* Nathaniel Popper, *High-Speed Trading No Longer Hurtling Forward*, N.Y. TIMES, Oct. 14, 2012, at B1.

Morgan Chase & Co.—a prominent investment bank—earned profits of $11.6 billion in 2009 and $18.9 billion in 2011.[98] Apple, Inc., earned more profits in each quarter of 2011 than HFT earned all year.[99]

Despite the small number of HFTs and the (relatively) small profits earned from such activity, HFT has had an outsized impact on trading in U.S. equity markets. Again, starting from almost nothing only ten years ago, HFT now accounts for a majority of all shares traded in U.S. equities.[100] Thus, the small size of the HFT industry almost certainly understates the importance of HFT to the operation of U.S. equity markets.

The short holding periods and flat positions utilized by HFTs obviously preclude traditional long-term buy-and-hold value investing,[101] but most trading strategies used by HFTs are actually qualitatively similar to trading activities that have been around for decades. While the speed and volume of HFT is unlike anything that has come before, most of the investment strategies pursued using HFT are not particularly innovative.[102] The SEC

98. JPMorgan Chase & Co., Annual Report (Form 10-K), at 62 (Feb. 28, 2013).

99. *Compare* Apple Inc., Annual Report (Form 10-K), at 75 (Oct. 31, 2012), *with* Popper, *supra* note 97. To update that classic comparison for making large dollar amounts seem small, Americans spent more than $50 billion on their pets in 2011. *See* Press Release, American Pet Products Association, Pet Owners are Expected to Spend More than $52 Billion on Their Pets in 2012 (Mar. 1, 2012), *available at* http://media.americanpetproducts.org/press.php?include=143498.

100. *See* SEC Concept Release, *supra* note 30, at 3606 ("Estimates of HFT volume in the equity markets vary widely, though they typically are 50% of total volume or higher."); Hu, *supra* note 18, at 1702 ("HFT, a term referring loosely to professional traders acting in a proprietary capacity that engage in strategies generating a large number of trades on a daily basis, may account for at least 50% of equity trading."); Mi Hyun Yoon, Comment, *Trading in a Flash: Implication of High-Frequency Trading for Securities Regulators Worldwide*, 24 EMORY INT. L. REV. 913, 922 (2010) ("HFT is believed to have accounted for 50% to 70% of [the jump in trading volume] while also accounting for similar proportions of the trading volume increases in electronic futures and options markets."); Scott Patterson & Geoffrey Rogow, *What's Behind High-Frequency Trading*, WALL ST. J., Aug. 1, 2009, at B1 ("High-frequency trading now accounts for more than half of all stock-trading volume in the U.S."). The proportion of trading attributable to HFT appears to have lessened somewhat since the height of the financial crisis, when high market volatility made HFT especially profitable, for reasons that will become clear later. *See* Popper, *supra* note 97 (citing data by Tabb Group and Rosenblatt Securities showing HFT's share of trading volume declining from 61% in 2009 to 51% in 2012).

101. One of the most famous and successful "value" investors, Warren Buffett, is known for saying "our favorite holding period is forever." *See, e.g.*, Letter from Warren E. Buffet, Chairman of the Board, Berkshire Hathaway, to Shareholders (Feb. 28, 1989), *available at* http://berkshirehathaway.com/letters/1988.html.

102. *See, e.g.*, Gomber et al., *supra* note 45, at 24 ("While the universe of HFT strate-

has divided the most prominent of these strategies into four categories: (1) market making; (2) arbitrage; (3) structural strategies; and (4) directional strategies.[103] Of these, the first two are long-standing—and generally beneficial—trading activities. The third and fourth are potentially more troubling, though also not exactly new. A brief examination of these potential strategies follows.

One of the most common uses of HFT is to conduct market making, providing liquidity to the markets.[104] Market making refers to the placement of limit orders to buy (sell) shares just below (above) the most recent market price.[105] The market maker seeks to profit from the difference between the price at which she will sell and the price at which she will buy (the "spread").[106] As its name implies, market making generally helps to ensure smooth functioning of markets, by providing liquidity in the form of a ready supply of shares to buy or sell.[107] Market making is not a new phenomenon. Traditionally, this market making function has been performed by "specialists" given privileged access to the trading venue in exchange for an affirmative obligation to maintain active quotes in the market.[108] With the advent of HFT, an increasing amount of this market making activity is performed by

gies is to [sic] diverse and opaque to name them all, some of these strategies are well known and not necessarily new to the markets. The notion of HFT often relates to traditional trading strategies that use the possibilities provided by state-of-the-art [information technology].").

103. *See* SEC Concept Release, *supra* note 30, at 3607–10. The Australian Securities and Investment Commission ("ASIC") set forth a similar categorization scheme. Report 215: Australian Equity Concept 47–48, Austl. Sec. & Inv. Comm'n 2010, *available at* http://www.asic.gov.au/asic/pdflib.nsf/LookupByFileName/rep-215.pdf/$file/rep-215.pdf. ASIC puts forth three categories—liquidity provision, statistical arbitrage, and liquidity detection—which largely overlaps with the four categories identified by the SEC. *Id.*; *see also* Gomber et al., *supra* note 45, at 24–31 (using a similar categorization scheme).

104. *See* Gomber et al., *supra* note 45, at 25 ("One of the most common HFT strategies is to act as a liquidity provider.").

105. *See id.* at 16.

106. *See* SEC Concept Release, *supra* note 30, at 3607 (describing how the market maker profits "from earning the spread by buying at the bid and selling at the offer").

107. In general, resting (limit) orders can be said to provide liquidity to the market, while orders seeking immediate execution at the best available price ("market" or "aggressive" orders) consume liquidity by executing against these resting orders. Peter N. Kolm & Lee Maclin, *Algorithmic Trading, Optimal Execution, and Dynamic Portfolios*, in THE OXFORD HANDBOOK OF QUANTITATIVE ASSET MANAGEMENT 371, 372–373 (Bernd Scherer & Kenneth Winston eds., 2012).

108. *See* SEC Concept Release, *supra* note 30, at 3607 ("Professional traders with a permanent presence in the marketplace, standing ready to buy and sell on an ongoing basis, are a perennial type of participant in financial markets.").

proprietary traders without any special access privileges—other than that provided by their superior technology—but also, notably, without any obligation to continue providing liquidity during periods of market turmoil.[109]

Because high liquidity makes an exchange more attractive to traders by reducing trading costs, trading venues compete for liquidity by offering rebates to traders who provide liquidity by supplying resting orders.[110] The NASDAQ, for example, paid market maker rebates of nearly $1.4 billion in 2009.[111] These incentives offer HFTs another way to profit from market making, by designing their algorithms in a way that seeks to capture these rebates.[112] As discussed more fully below, such rebate-hunting strategies are at least potentially of concern. If HFTs are able to design their algorithms to profitably capture rebates by offering liquidity when it is cheap to provide (and therefore least needed) and withdrawing liquidity when it is expensive to provide (and therefore needed most)—or by making and cancelling orders so quickly that no genuine liquidity is actually provided in the first place—then they would be driving up the cost of trading for long-term investors without providing any compensating benefits.[113]

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109. *Id.* ("Proprietary firms largely have replaced more traditional types of liquidity providers in the equity markets, such as exchange specialists on manual trading floors and OTC market makers that trade directly with customers. In contrast, proprietary firms generally are not given special time and place privileges in exchange trading (nor are they subject to the affirmative and negative trading obligations that have accompanied such privileges)."); Gomber et al., *supra* note 45, at 25 ("While many HFTs provide the market with liquidity like registered market makers, they frequently do not face formal obligations to quote in the markets in which they are active.").

110. *See* SEC Concept Release, *supra* note 30, at 3608 ("One important aspect of passive market making is the liquidity rebates offered by many exchanges and ECNs when resting orders that add liquidity are accessed by those seeking to trade immediately by taking liquidity."); Gomber et al., *supra* note 45, at 25 ("[T]rading venues incentivize these liquidity provider[s] by granting rebates . . . in order to increase market quality and attractiveness."); Yoon, *supra* note 100, at 923 ("In competing for liquidity, exchanges reward rebates to members for non-marketableorders [sic] that merely *offer* liquidity at a particular price while charging an access fee to those who look for and execute against these limit orders, taking liquidity.").

111. NASDAQ OMX, Annual Report (Form 10-K), at 57 (Feb. 18, 2010), *available at* http://ir.nasdaqomx.com/secfiling.cfm?filingID=1193125-11-45348.

112. *See* Gomber et al., *supra* note 45, at 26 ("Other [HFT] liquidity provision strategies are built around particular incentive schemes of some markets."); Yoon, *supra* note 100, at 923–24.

113. *See* SEC Concept Release, *supra* note 30, at 3608 (asking whether "liquidity rebates reward proprietary firms for any particular types of trading that do not benefit long-term investors or market quality," and positing the existence of "risk-free trading strate-

Another long-standing market strategy brought into the electronic age by HFT is arbitrage. At its simplest, arbitrage is the attempt to profit from a situation where the same (or equivalent) goods are selling for different prices at the same time, by buying at the lower price and selling at the higher price.[114] When the same security trades in more than one venue, any price discrepancy between those venues presents an arbitrage opportunity, as does any discrepancy between the price of a derivative or index fund and the underlying securities.[115] With liquid, interconnected markets and large numbers of sophisticated traders, risk-free arbitrage opportunities in modern markets tend to be fleeting[116] and HFTs "leverage state of the art technology to profit from small and short-lived discrepancies between securities."[117]

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gies driven solely by the ability to recoup a rebate that offer little or no utility to the marketplace"); Yoon, *supra* note 100, at 923–24.

114. *See* SEC Concept Release, *supra* note 30, at 3608 ("An arbitrage strategy seeks to capture pricing inefficiencies between related products or markets."). An everyday example of arbitrage is cigarette smuggling in New York City. Cigarettes sold in the city are subject to excise taxes totaling almost $7 per pack, driving the cost of a single pack of cigarettes to $12 or more. Meanwhile, untaxed cigarettes sold on Native American reservations on Long Island, or in nearby low-tax states like New Hampshire can cost less than $5 a pack. This enormous price differential creates a classic arbitrage opportunity, and has spawned an active smuggling trade seeking to take advantage of it. *See* Joseph Goldstein, *A Cigarette for 75 Cents, 2 for $1: The Brisk, Shady Sale of "Loosies,"* N.Y. TIMES, Apr. 4, 2011 at A1; Catherine Rampell, *Cigarette Taxes vs. Cigarette Smuggling*, N.Y. TIMES BLOG (ECONOMIX) (Jan. 10, 2013), http://economix.blogs.nytimes.com/2013/01/10/cigarettes-taxes-vs-cigarette-smuggling/?_r=0.

115. *See* SEC Concept Release, *supra* note 30, at 3608 ("For example, the [arbitrageur] may seek to identify discrepancies between the price of an ETF and the underlying basket of stocks and buy (sell) the ETF and simultaneously sell (buy) the underlying basket to capture the price difference."); Gomber et al., *supra* note 45, at 28 ("[I]f, e.g. an option is priced too high relative to its underlying; arbitrageurs can earn profits by selling the option and simultaneously buying the underlying. In a similar way, ETF arbitrageurs trade ETFs against their underlying and profit from respective pricing inefficiencies."). ETFs—exchange-traded funds—are simply investment funds that adjust their holdings in an attempt to track the returns of an index. Thor McLaughlin, *Eyes Wide Shut: Exchange Traded Funds, Index Arbitrage and the Need for Change*, 27 REV. BANK & FIN. L. 597, 599 (2008). Some of the largest and most liquid ETFs, for example, seek to track well-known indexes such as the S&P 500. Peter N. Hall, Note, *Bucking the Trend: The Unsupportability of Index Providers' Imposition of Licensing Fees for Unlisted Trading of Exchange Traded Funds*, 57 VAND. L. REV. 1125, 1126 n.2 (2004). Investors seeking to earn the same return as the S&P 500 can simply buy an ETF, rather than having to own all 500 component stocks. McLaughlin, *supra*, at 599–600. When the price of an ETF and the underlying index diverge, an arbitrage opportunity may arise.

116. Gomber et al., *supra* note 45, at 27 ("Opportunities to conduct arbitrage strategies frequently exist only for very brief periods (fractions of a second).").

117. *Id.*

HFTs may also use so-called "structural" strategies that attempt to "exploit structural vulnerabilities in the market or in certain market participants."[118] In particular, HFTs can potentially use their superior speed to take advantage of other market participants. When exchanges offer co-location arrangements and direct data feeds, HFTs can potentially process and react to market information more quickly than traditional traders relying on the consolidated market data, and "profit by identifying market participants who are offering executions at stale prices."[119] Such strategies are sometimes described as "latency arbitrage," in that they seek to profit from pricing discrepancies caused by brief delays in market data being conveyed to traders.[120]

The above three types of strategies are all "market neutral," in the sense that they do not involve taking an unhedged position in the belief that prices are going to move in a particular direction in a lasting fashion. The remaining HFT strategies—while still involving rapid trades and short holding periods—may be termed "directional" in that they do involve identifying potential price movements.[121] To the extent that such strategies are simply very fast efforts at determining that a security has strayed from its "true" value, they are uncontroversial and likely contribute to market efficiency.[122] HFTs may also seek to trend-follow, riding waves of market momentum just like classic day-traders during the dot-com boom.[123]

Two other types of "directional" strategy are potentially more problematic, though again not entirely novel. The first are so-called "order anticipation strategies."[124] As has been noted, when a trader seeks to execute a large order, it can cause prices to

118. SEC Concept Release, *supra* note 30, at 3608.

119. *Id.*; *see also* Yoon, *supra* note 100, at 924–25.

120. *See* Gomber et al., *supra* note 45, at 29.

121. SEC Concept Release, *supra* note 30, at 3608.

122. *See id.* ("Some 'directional' strategies may be as straightforward as concluding that a stock price temporarily has moved away from its 'fundamental value' and establishing a position in anticipation that the price will return to such value. These speculative strategies often may contribute to the quality of price discovery in a stock.").

123. *See* Gomber et al., *supra* note 45, at 30 ("Momentum based trading strategies are not new and have been implemented by traditional traders for a long time.").

124. Diego Leis, *High Frequency Trading: Market Manipulation and Systemic Risks from an EU Perspective* 23 (Feb. 29, 2012), *available at* http://ssrn.com/abstract=2108344.

move.[125] To prevent this, investors typically seek to disguise large trades by breaking them up into a number of smaller trades. Order anticipation strategies seek to identify such large, disguised trades, and trade ahead of them—a practice sometimes known as "front-running"—to take advantage of any resulting price movement.[126] Again, order anticipation long predates HFT,[127] though

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125. Prices can move for at least two reasons. First, the fact that a trader is buying or selling a large amount of a given security conveys information about their belief as to the value of that security. To the extent that other market participants think the trader has new information about the security, they may rationally adjust their own beliefs as to the value of the security as a result. This phenomenon is sometimes known as the "information effects" of a trade. Second, a large trade might move prices directly by simply exhausting the available liquidity near the market price. This phenomenon is sometimes known as the "liquidity effects" of a trade. *See* Charles R. Korsmo, *Mismatch: The Misuse of Market Efficiency in Market Manipulation Class Actions*, 52 WM. & MARY L. REV. 1111, 1143–51 (2011) (discussing information effects and liquidity effects).

126. Leis, *supra* note 124, at 24. *See* LARRY HARRIS, TRADING AND EXCHANGES: MARKET MICROSTRUCTURE FOR PRACTITIONERS 245 (2003) ("Order anticipators are speculators who try to profit by trading before other traders trade. They make money when they correctly anticipate how other traders will affect prices or when they can extract option values from the orders that other traders offer to the market."); AUTH. FOR THE FIN. MKTS., HIGH FREQUENCY TRADING: THE APPLICATION OF ADVANCED TRADING TECHNOLOGY IN THE EUROPEAN MARKETPLACE 34 (2010), [hereinafter AFM] *available at* http://www.afm.nl/~/media/files/rapport/2010/hft-report-engels.ashx (defining "order anticipation strategies" as being when "a trader looks for the existence of large (for example) buyers, in the objective of buying before these orders, in order to benefit from their impact."). As suggested by Harris, order anticipators can make money in two basic ways. Most directly, they can

> Buy (sell) ahead of the large orders with the goal of capturing a price movement in the direction of the large trading interest (a price rise for buyers and a price decline for sellers). After a profitable price movement, the [order anticipator] then may attempt to sell to (buy from) the large buyer (seller) or be the counterparty to the large buyer's (seller's) trading.

SEC Concept Release, *supra* note 30, at 3609; *see also* Yoon, *supra* note 100, at 913–14 (describing an order anticipation strategy of this type).

Somewhat more subtly, the order anticipator can profit from an implied option created by the large trader. If, for example, the large trader is attempting to buy shares at \$10, the order anticipator can swoop in and buy as many shares as possible at \$10.01. If the price goes up, the order anticipator profits. If the price does not go up, the order anticipator can simply turn around and sell to the large trader at \$10, thus capping their losses at a penny per share. *See* SEC Concept Release, *supra* note 30, at 3609 ("In addition, the [order anticipator] may view the trading interest of the large buyer (seller) as a free option to trade against if the price moves contrary to the [order anticipator's] position."); *see also* Gomber et al., *supra* note 45, at 29 ("Using this strategy, a trader who has detected a large order within the order book places his own order ahead of the large order. If he has detected for example a large buy order, he places his own buy order at a slightly higher limit. Should prices now move upwards, he profits from the rise. However, should prices fall, the large order resting in the book serves as an option/hedge against which the trader can sell his own shares, thereby limiting his possible losses as long as the large limit order rests within the book.").

127. *See* SEC Concept Release, *supra* note 30, at 3609 ("Order anticipation is a [sic] not a new strategy."). The classic form of order anticipation is when a broker-dealer uses its

HFTs bring sophisticated new tools to the table. HFTs can "ping" or "snipe" trading venues[128] with small, rapid orders, and employ "sophisticated pattern recognition software" to sniff out hidden orders and attempt to trade ahead of them.[129]

The second type of directional strategy that is potentially troubling is a "momentum ignition" strategy.[130] Such a strategy seeks to "spoof" other traders—and perhaps most particularly, other HFTs seeking to exercise order anticipation strategies—into believing that large trading interest is present in the market.[131] If prices react to this phantom demand, HFTs can profit by trading into the reaction. Momentum ignition, again, closely resembles classic forms of market manipulation though HFT technology has allowed new levels of sophistication. A sophisticated manipulator will attempt to identify and reverse-engineer trading algorithms used by other traders, and then design his own algorithm so as to trick them by rapidly placing and cancelling orders to give the illusion of large buying or selling demand.[132] This type of manipulation has long been illegal, but the difficulty of discerning between

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own capital to trade ahead of its customers' orders. Such misappropriation of order information is already clearly illegal and actively prosecuted. *Id.*

128. Gomber et al., *supra* note 45, at 28–29 (internal quotation marks omitted); Leis, *supra* note 124, at 23–24.

129. SEC Concept Release, *supra* note 30, at 3609; *see* Leis, *supra* note 124, at 23–24.

130. Leis, *supra* note 124, at 24.

131. *See* SEC Concept Release, *supra* note 30, at 3609 (internal quotation marks omitted); Leis, *supra* note 124, at 24.

132. *See* SEC Concept Release, *supra* note 30, at 3609. The SEC describes the process thus:

> For example, the trader may intend that the rapid submission and cancellation of many orders, along with the execution of some trades, will 'spoof' the algorithms of other traders into action and cause them to buy (sell) more aggressively. . . . By establishing a position earl[y], the [HFT] will attempt to profit by subsequently liquidating the position if successful in igniting a price movement.

Id. AFM defines "spoofing" and the related concept of "layering" as follows:

> "*Spoofing*: introducing an order (for example a buy order) to the order book, which is not meant to be executed, whose size and ranking in the order book results in a change in the spread to another (in this example: higher) level.
>
> *Layering*: a form of spoofing in which a trader on one side of the order book (for example the buy side) inserts a large quantity of orders with *different* price limits. This is designed to create the impression of increasing pressure on one side of the order book. The actual intention of this trader however is to trade opposite transactions to the orders originally inserted (in this example: to sell). The buy orders in question are then cancelled before they are executed."

AFM, *supra* note 126, at 34.

manipulative and legitimate patterns of trading—perhaps made even more challenging in a world of HFT—makes it hard to estimate the prevalence of illegal momentum ignition strategies.[133]

While other uses of HFT are possible, the four categories introduced above represent the dominant strategies, and most forms of HFT activity can be categorized under one or more of these headings.

II. THE BENEFITS OF HIGH-FREQUENCY TRADING

With so much of the focus on the *dangers* of HFT, it is easy to lose sight of the *benefits*, which are potentially substantial. Some of these benefits are relatively clear-cut and uncontroversial (even if they are often overlooked). For other seeming benefits, though, disagreement exists as to whether they are illusory.

On the one hand, it is clear that the emergence of HFT has resulted in dramatically reduced spreads and faster execution times, at least under ordinary conditions. The average time required to execute a trade on the major exchanges, which was once measured in minutes and was still measured in seconds as little as a decade ago, has fallen to a tiny fraction of a second.[134] As a result, investors are now able to execute trades almost instantaneously, without fear that prices or other information will grow stale before their orders go through.

At the same time, bid-ask spreads have narrowed considerably. Bid-ask spreads represent the cost of liquidity—the price an investor pays to have a market maker stand ready to trade with them at any time.[135] In the not so distant past, bid-ask spreads represented a significant cost for traders in all but the most heavily traded securities.[136] HFTs have brought intense competition

133. *See* SEC Concept Release, *supra* note 30, at 3609–10.

134. *See* TECHNICAL COMM. OF THE INT'L ORG. OF SEC. COMM'NS, REGULATORY ISSUES RAISED BY THE IMPACT OF TECHNOLOGICAL CHANGES ON MARKET INTEGRITY AND EFFICIENCY 26 (2011) ("Execution speed has fallen from seconds to as little as microseconds within ten years. Some measures of liquidity have improved with implicit trading costs (like quoted bid-ask spreads) and explicit costs (e.g., trading fees) declining.") [hereinafter IOSCO REPORT]; *see also* Jason Zweig, *Staying Calm in a World of Dark Pools, Dark Doings*, WALL ST. J., Oct. 24, 2009, at B1.

135. Leis, *supra* note 124, at 26.

136. *See, e.g.*, *Minimum Resting Time in Europe is "Going to be Awful," Warn Market Users*, MARKETS MEDIA (Oct. 17, 2012), http://marketsmedia.com/minimum-resting-time-

and superior technology to market making, reducing such costs dramatically.[137] HFTs ability to readjust orders at a very high speed in reaction to changing market conditions is one of the primary drivers of the narrowing of spreads in the past decade. By increasing the speed at which market makers are able to react, HFTs are able to reduce the risk of being wrong-footed by changing conditions, and thus need smaller spreads to compensate for such risk.[138] The effect has been large. In a 2009 interview, for example, Joe Gawronski of Rosenblatt Securities noted that "[f]ifteen years ago, some spreads between buying and selling prices could be at least a quarter; today, it often is a penny."[139] Similarly, high trading volume and intense competition have helped cause other trading costs to drop precipitously. By way of example, online brokerage fees from popular broker Charles Schwab were at least 2% in the late 1990s, prior to HFT becoming widespread.[140] In more recent years, such brokerage fees have totaled, at most, 0.3%.[141]

Long-term investors benefit from a lower cost of trading as a result of these developments. As such, HFT is often "render[ing] you a service as a buy-and-hold investor: On the very rare occasions when you do need to trade, you will be able to do so more efficiently than ever before."[142] These reduced costs benefit the broader economy as well. With lower trading costs, investors will demand less of a premium as compensation, and thus pay more for the same financial returns. The net result is a lowered cost of raising capital through the public markets.

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137. IOSCO REPORT, *supra* note 134, at 11.

138. *Id.* Owain Self, head of algorithmic trading at the investment bank UBS, explained the effect of this greater speed in the context of a proposal by European regulators to limit the speed at which HFTs can update their market quotes. He noted that

> if you're trading an ETF . . . where the underlying price of the constituents could change thousands of times a second and you are only allowed to update your quotes twice a second, you are going to have to have a wider spread to allow for that volatility on the underlying price. So spreads are bound to widen.

Minimum Resting Time, *supra* note 136.

139. Zweig, *supra* note 134.

140. *Id.*

141. *Id.*

142. *Id.*

III. FAMILIAR RISKS THAT ARE NOT UNIQUE TO HIGH-FREQUENCY TRADING

Balanced against these benefits are a large number of potential risks. The most important of these risks—and the one that is both serious and peculiar to HFT—is the risk of liquidity crunches leading to extreme volatility events like the Flash Crash, as described in Part IV. But before turning to the risk of volatility spikes, Part III reviews six other risks associated with HFT: (1) market manipulation by HFTs; (2) "parasitic" trading by HFTs; (3) unfairness to less technologically sophisticated investors; (4) negligently designed rogue algorithms; (5) reducing allocative efficiency by driving prices away from fundamental values; and (6) overburdening of market infrastructure.

These risks have two unifying themes. First, each of these risks has been singled out by proponents of new regulations for HFTs. Second, with the possible exception of the last risk, none of them are unique to HFT. Virtually all arose before HFT existed, and still exist as a result of non-HFT market activity. Because these risks are already familiar, they are already governed—at least to some extent—by existing regulatory regimes. While HFT might justify an increase in the scale of regulation aimed at these risks, or in the technique and intensity of enforcement, it is unlikely to require new HFT-specific regulatory regimes. Likewise, while the risk of overburdening of market infrastructure may be particular to HFT, it is a risk that is highly amenable to solution by private actors without the need for new public regulation.

A. *Market Manipulation*

As noted in Part I, one type of directional HFT strategy—momentum ignition—is simply a technologically augmented version of one of the classic forms of market manipulation. The concept of market manipulation has a long and checkered intellectual history.[143] Market manipulation was banned in 1934, and prevention of manipulation has been said to be at "the very heart" of the securities acts.[144] Nonetheless, the securities acts do not de-

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143. *See* Daniel R. Fischel & David J. Ross, *Should the Law Prohibit "Manipulation" in Financial Markets?*, 105 HARV. L. REV. 503, 503–06 (1991); Korsmo, *supra* note 125, at 1135–43.

144. LOUIS LOSS, FUNDAMENTALS OF SECURITIES REGULATION 853 (2d ed. 1988) (quot-

fine "manipulation" beyond banning wash sales and matched orders,[145] "and courts have struggled to find a meaningful definition."[146] The term "manipulation" has also failed to acquire an agreed-upon meaning in the academic literature. In a well-known article, Daniel Fischel and David Ross spelled out the deficiencies in some of the most common definitions of "manipulation,"[147]

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ing STAFF OF H. COMM. ON THE INTERSTATE & FOREIGN COMMERCE, 77th CONG., REP. OF THE SECURITIES AND EXCHANGE COMMISSION ON PROPOSALS FOR AMENDMENTS TO THE SECURITIES ACT OF 1933 AND THE SECURITIES EXCHANGE ACT OF 1934, at 50 (1941)) (internal quotation marks omitted). Section 2 of the 1934 Securities Exchange Act ("1934 Act") declares that "[n]ational emergencies . . . which burden interstate commerce and adversely affect the general welfare, are precipitated, intensified, and prolonged by manipulation and sudden and unreasonable fluctuations of security prices. . . ." 15 U.S.C. § 78b(4) (2012). In the wake of the market crash that marked the beginning of the Great Depression, popular imagination assigned a great deal of blame to so-called "stock pools"—insiders, bankers, and speculators who supposedly combined to manipulate the stock market. *See* Paul G. Mahoney, *The Stock Pools and the Securities Exchange Act*, 51 J. FIN. ECON. 343, 344 (1999) ("The purpose of the pools, the Senate[] concluded, was to manipulate the price of the chosen stock upward through the pool's purchases, then to sell the overpriced stock prior to the inevitable price decline.").

145. Wash sales are economically fictitious transactions in which there is no change in actual, beneficial ownership, while matched orders are offsetting purchases and sales entered into by a single party or members of a cooperating group of traders. Seth S. Gomm, *See No Evil, Speak No Evil:* Stoneridge Investment Partners, LLC v. Scientific-Atlanta, Inc. *and the Supreme Court's Attempt to Determine the Issue of Scheme Liability*, 61 ARK. L. REV. 453, 456 (2009).

146. Korsmo, *supra* note 125, at 1135; *see also* Fischel & Ross, *supra* note 143, at 506 (noting that "even though both have the prevention of manipulation as a primary goal," neither the Securities Exchange Act nor the Commodity Exchange Act provide a definition of "market manipulation"); LOSS, *supra* note 144, at 860 n.75 ("[T]he word 'manipulative' as used in §§ 10(b) and 15(c)(1) has never had any precise meaning . . . .").

147. Fischel & Ross, *supra* note 143, at 506. Specifically, Fischel and Ross reject attempts to define manipulation as conduct "designed to do one of three things: (1) interfere with the free play of supply and demand; (2) induce people to trade; or (3) force a security's price to an artificial level." *Id.* at 507. They reject the first formulation because the term "interfere" is "circular absent a definition of manipulation." *Id.* All trades and traders are a part of the "play of supply and demand." *Id.* A large investor who places a large order in the honest belief that the stock is a good investment will alter the supply and demand in the same fashion as one who places a large order for manipulative purposes. In attempting to define manipulation, the entire problem is to distinguish between demand that is in some sense "legitimate" and demand that is somehow "illegitimate." Without some definition of manipulation "that distinguishes between legitimate and illegitimate demand, the concept of interference with supply and demand does not advance the inquiry." *Id.*

Although acknowledging that "inducement of trading . . . is sometimes said to be the essence of manipulation," Fischel and Ross reject this second formulation as "hopelessly overbroad." *Id.* (quoting Steve Thel, *Regulation of Manipulation Under Section 10(b): Securities Prices and the Text of the Securities Exchange Act of 1934*, 1988 COLUM. BUS. L. REV. 359, 410 (1988)). At one extreme, of course, every bid or offer is intended to induce someone to trade—the counterparty to the trade. *Id.* at 507–08. Clearly this cannot be what is meant. There are also many perfectly legitimate situations in which firms or individuals may act to induce trades by people other than counterparties. Most obviously, any time a firm discloses new information about the "value or riskiness" of the firm's securi-

before settling on the following definition:

> (1) [T]he trading is intended to move prices in a certain direction; (2) the trader has no belief that the prices would move in this direction but for the trade; and (3) the resulting profit comes solely from the trader's ability to move prices and not from his possession of valuable information.[148]

To cover the HFT world, we need only expand this definition slightly to allow the possibility of strategies where it is the placement of a large number of orders that is intended to move prices, rather than any actual trading. With this minor addition, the definition is quite workable for our purposes. Without being overly broad, it aptly identifies trading strategies that are made profitable primarily as a result of effectively tricking other investors, and without providing any obvious benefits in terms of liquidity or price-discovery. It also focuses on the type of "trade-based" manipulation most likely to be characteristic of HFT—that is, manipulation that works by engaging in trading activity that,

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ties, it is "likely [to] lead to increases in the volume of trading and thus can be said to have 'induced' trading." *Id.* at 508.

The third formulation—forcing security prices to an artificial level—"has intuitive appeal because creation of artificial prices, unlike trading, is socially undesirable." *Id.* The problem with this formulation as an attempt to craft an "objective" definition of manipulative conduct—not depending on the intent of the trader—is the inability to determine whether a price level is "artificial." *Id.* What is to distinguish between a manipulator and an investor who trades in the genuine belief that prices will move in a given direction, but who proves to be mistaken, with prices ultimately moving in the other direction? *Id.* at 509. "Trading based on a genuine belief that prices will ultimately move in the direction of the trades is the essence of nonmanipulative trading," but the third proposed formulation provides nothing to distinguish it from manipulation. *Id.*

More subtly, "[d]efining manipulation by reference to whether the trades move prices closer to their correct level" could threaten "property rights in information." *Id.* "[T]rades, as well as disclosures, can reveal information." *Id.* As noted previously, trades can signal the presence of new or superior information. Ronald J. Gilson & Reinier H. Kraakman, *The Mechanisms of Market Efficiency*, 70 VA. L. REV. 549, 572–79 (1984). If trades were perfectly informative, however, it would destroy the ability of investors to profit from generating new information, imperiling the very mechanisms on which market efficiency depends. *See id.* at 577; Sanford Grossman, *On the Efficiency of Competitive Stock Markets Where Trades Have Diverse Information*, 31 J. FIN. 573, 585 (1976) ("The price system can be maintained only when it is noisy enough so that traders who collect information can hide that information from other traders."). In order to preserve incentives for investors to acquire information in the first place—and thus fulfill the information-generating function of markets—"[t]raders must be allowed to disguise their trades to avoid disclosing the information they possess to other traders." Fischel & Ross, *supra* note 143, at 509–10. A definition of market manipulation built around forcing prices to an "artificial" level would threaten the ability of traders to disguise their trades. *Id.* at 510.

148. Fischel & Ross, *supra* note 143, at 510.

while perhaps conveying a false impression to other market players, does not involve making any actual false statements.[149]

It is useful to consider a few examples of trade-based manipulation. The so-called "Norwegian Robot Case" is illustrative of the types of strategies HFTs might use. Beginning in 2007, two Norwegian day traders managed to reverse-engineer an algorithm being used by Timber Hill Europe AG ("Timber Hill") to provide market making services for a number of securities.[150] They found that the algorithm—designed to allow Timber Hill to place limit orders at prices just above and just below the market price—looked at orders being executed, but did not take into account the size of those orders.[151] The day traders were able to take advantage of this ill-designed market making algorithm.[152] Over a period of several months, they repeatedly bought relatively large quantities of small stocks, and then executed a series of small purchases over the course of a minute or two, causing Timber Hill's algorithm to raise its prices.[153] The traders could then dump their larger positions at the elevated prices for a profit.[154]

Another example involves the type of momentum ignition strategy discussed above, and also led to actual sanctions for the

149. *See id.* at 510–11. "Trade-based" manipulations are to be distinguished from more straightforwardly fraud-like forms of manipulation, sometimes known as "action-based" manipulation or "information-based" manipulation. *See* Franklin Allen & Douglas Gale, *Stock-Price Manipulation*, 5 REV. FIN. STUD. 503, 505 (1992); Leis, *supra* note 124, at 31–32. The classic example of an action-based manipulation is where management announces a decision (such as a decision to close a profitable factory) that depresses the stock price, buys up as much of the stock as possible, and then reverses the decision. Allen & Gale, *supra*, at 503–05. Information-based manipulation involves the spreading of false rumors or information in an attempt to move the stock price, such as in a classic "pump-and-dump" scheme. Leis, *supra* note 124, at 32–33. Neither of these types of manipulation—which would perhaps be better analyzed as straightforward frauds—requires HFT technology, or is particularly characteristic of HFT activity.

150. *See* Leis, *supra* note 124, at 46–47.

151. *See id.* at 47; *see also* Chris V. Nicholson, *Oslo Court Sentences Traders for Beating Machine*, N.Y. TIMES DEALBOOK (Oct. 14, 2010), http://dealbook.nytimes.com/2010/10/14/oslo-court-sentences-traders-for-beating-machine/?-r=0.

152. *See* Leis, *supra* note 124, at 47.

153. *See id.*; Martin Sandbu, *How Norwegian Algo Traders Made Their Money*, FIN. TIMES (Oct. 17, 2010), http://www.ft.com/intl/cms/s/0/35d6244c-d9fa-11df-bdd7-00144feabdc0.html.

154. Leis, *supra* note 124, at 47; *see also* Nicholson, *supra* note 151; Sandbu, *supra* note 153. The unusual trading patterns were eventually noticed, and the two traders were ultimately "found guilty of market manipulation in violation of the Norwegian Securities Trading Act." Leis, *supra* note 124, at 47.

perpetrators.[155] While, again, the activity in question was not technically HFT,[156] the case provides a clear example of the types of strategies allegedly employed by HFTs. Trillium Brokerage Services ("Trillium"), a New York-based brokerage firm, together with a number of affiliated traders "engaged in a repeated pattern of layering conduct to take advantage of trading."[157] If, for example, Trillium wanted to buy stock ABC at $9.95, but the best (lowest) available offer was $10.00, Trillium would enter a limit order at $9.95, and then proceed to "layer the book" by entering large sell orders at just above the best available offer—at $10.01, $10.02, and so on.[158] Other traders would see these large sell orders in the book, and—Trillium hoped—interpret them as representing large, genuine selling interest.[159] As a result, these traders would lower their estimate of the value of the stock, and reduce their bid and offer prices accordingly.[160] Once the prices fell enough to hit Trillium's resting buy order at $9.95, the order would be executed.[161] Within seconds of executing its buy order, Trillium would cancel all of its sell orders, with the net result being that these "non-bona fide" sell orders enabled Trillium to obtain shares more cheaply than they otherwise could.[162]

While neither the Norwegian Robot Case nor the Trillium case technically involved HFT, they are excellent examples of the kind

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155. *See* Leis, *supra* note 124, at 48. The firm involved, together with some of the responsible individuals, was ultimately fined more than $2 million by the Financial Industry Regulatory Authority ("FINRA"), a private regulatory organization that oversees the financial industry. Trillium Brokerage Servs., LLC, Letter of Acceptance, Waiver and Consent No. 20070076782-01, at 11–12 (FINRA, Sept. 13, 2010) [hereinafter Letter of Acceptance].

156. Press reports on the matter occasionally referred to the case involving a "high frequency trading firm"—likely keying off of FINRA's press release, which described the case as involving "an illicit high frequency trading strategy." *See* Jean Eagleshaw, *High-Frequency Trades Earn $2.3m Fine*, FIN. TIMES (Sept. 13, 2010), http://www.ft.com/intl/cms/s/0/488b7a66-bcab-11df-a755-00144feab49a.html; Janet M. Angstadt, *FINRA Sanctions Trillium Brokerage Services, Director of Trading, Chief Compliance Officer and Nine Traders $2.26 Million for Illicit "Layering" Trading Strategy*, CORPORATE & FIN. WKLY. DIGEST (Sept. 17, 2010), http://www.jdsupra.com/legalnews/finra-sanctions-trillium-brokerage-servi-57752/. It appears, however, that the orders involved—while undoubtedly numerous and rapid by conventional standards—were entered manually, rather than as part of an HFT strategy.

157. Letter of Acceptance, *supra* note 155, at 5.

158. Leis, *supra* note 124, at 48–49.

159. *See id.*

160. *See id.* at 49; Angstadt, *supra* note 156.

161. Letter of Acceptance, *supra* note 155, at 5.

162. *Id.*

of trading in which HFTs are often suspected of engaging: designing their algorithms to sniff out and prey upon vulnerable strategies—often automated strategies—used by other traders.[163] The Norwegian day traders used actual orders to take advantage of a particularly lousy trading algorithm, but the Trillium case shows how more sophisticated HFTs can potentially exploit other traders entirely through the use of orders the HFTs never intend to execute.

These cases demonstrate two additional points. First, that manipulation—even manipulation using techniques similar to those that might be employed by HFTs—is not unique to HFTs. Second, in both of these cases, the perpetrators were identified and punished under existing regulations. These same long-standing regulations could easily be interpreted so as to encompass the types of manipulation HFTs might attempt.

This is not to say that manipulation by HFTs is not potentially problematic. HFT may increase the sheer amount of manipulation taking place. There is some reason to fear that HFTs may be able to solve the classic problem always faced by would-be manipulators—how to get out at a profit before the manipulative effect evaporates. Information effects from trading are "likely to be symmetrical—that is, any change in price caused by manipulative trades is likely to be offset when the manipulative trades are unwound."[164] The sheer speed of HFT could allow them to manipulate and exit the market before other traders are able to react.[165]

163. IOSCO REPORT, *supra* note 134, at 28 ("IOSCO was not presented with clear evidence of the systematic and widespread use of abusive practices by those engaging in HFT. Hence HFT and market manipulation should be kept as two distinct concepts and should not be automatically equated.").

164. *See* Korsmo, *supra* note 125, at 1145; *see also* Fischel & Ross, *supra* note 143, at 519 ("If purchases increase the demand and thus the price, sales will have the opposite effect."). Of course, the manipulator does not need to profit from actually re-selling (or buying) the stock at a manipulated price if she can profit from some contractual right tied to the market price of a security at a particular time. The most straightforward example would be a stock option expiring at the end of a trading day, giving the holder the contractual right to receive a payment tied to the closing price of the stock. HFTs (or other traders) could attempt to flood the market for the underlying stock with last-minute orders in an attempt to drive up the price—and the corresponding payment under the option contract—before the market closes, a practice known as "marking the close." *See* EMILIOS AVGOULEAS, THE MECHANICS AND REGULATION OF MARKET ABUSE: A LEGAL AND ECONOMIC ANALYSIS 131 (2005).

165. *See* IOSCO REPORT, *supra* note 134, at 28 ("[One] concern is whether technological advantage offers HFT firms the possibility of engaging in abusive practices on a larger scale than would have previously been possible.").

Furthermore, the huge order volumes generated by HFT could potentially mask illicit layering activity, making manipulative trading more difficult to detect.[166] As a result, greater investment in detection and enforcement—greatly assisted by the new consolidated audit trail discussed below[167]—may be required.

The danger of new forms of manipulation by HFTs is, however, somewhat limited by the nature of the parties potentially injured by HFT market manipulation. In a true HFT manipulation, only other highly sophisticated traders—most likely other HFTs—would even be able to respond quickly enough to detect the rapidly placed and cancelled orders in time to be fooled by them.[168] These sophisticated traders are likely well-positioned to take steps, such as redesigning their algorithms, to protect themselves against such manipulations.[169] It might be thought that other unknowing investors who just happen to buy or sell the manipulated security during the period of the manipulation could also be harmed. But so long as such trading is unrelated to the manipulation, it will be functionally random—the unknowing investor is as likely to benefit as to suffer from any given manipulation.[170]

B. *Parasitic Trading*

Closely related to manipulation is what I will call "parasitic" trading. By "parasitic" I mean strategies designed purely to prey upon other traders, without providing any obviously compensating benefits in terms of price discovery or liquidity. Many of the harms just considered could also be termed parasitic. Both the Norwegian Robot Case and the Trillium case involved trading schemes seeking to exploit the algorithms used by other traders.

166. *See* Leis, *supra* note 124, at 36 ("HFT use an elevated order-to-trade ratio, which implies the cancellation of most . . . submitted orders at a very high frequency. These orders are supposedly cancelled because of the continuous update of information, especially when used by market-makers. However, they could also be extremely effective in layering the market by simulating inexistent liquidity.").

167. *See infra* Part VI.A.

168. *See supra* Part I.B.

169. *See* Gomber et al., *supra* note 45, at 60 (stating that HFTs are "sophisticated market players").

170. *See* Fischel & Ross, *supra* note 143, at 516. Counterparties to contracts tied to the manipulated securities, such as the holders of options, could also be harmed if the manipulation causes them to suffer under the contract. This risk could also be protected against by using financial contract terms that are not overly sensitive to short-term price fluctuations—something that is already best practices in legal drafting.

Most generally, HFTs may deploy algorithms designed to "sniff[] out" and take advantage of vulnerable algorithms used by other traders (including other HFTs).[171]

The trading strategy most commonly referred to as "parasitic," however, is order-anticipation, or front-running.[172] Order anticipation is not a new phenomenon, and has long been regarded as parasitic in nature.[173] As with market manipulation, though front-running has long existed, HFT may enable somewhat new forms or more widespread use of such strategies. Order anticipation traditionally involved misappropriation or mishandling of order information by brokers.[174] The advent of HFT, however, has opened up the possibility of more sophisticated order-anticipation activity.[175] As described above, a high-frequency trader might place large numbers of small orders designed to "ping" or "snipe" order books, identifying patterns that suggest that another trader is seeking to execute a large purchase (sale), either all at once or disguised by being divided into a number of smaller chunks.[176] Anticipating that the large purchase (sale) will cause the price to rise (fall), the trader can quickly trade in front of the large buyer (seller), and either benefit from the subsequent price move or, at worst, turn around and reverse the trade by trading with the large buyer (seller), thus essentially obtaining a free option.[177]

In addition to the fact that parasitic trading is not novel, an important consideration to keep in mind is that parasites are not necessarily an entirely bad thing. They may have a crucial role to

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171. Gomber et al., *supra* note 45, at 28–29 (internal quotation marks omitted).

172. *See supra* notes 124–29 and accompanying text.

173. *See* HARRIS, *supra* note 126, at 251.

174. *See id.* at 246–47 (stating that brokers must be careful with their order information so it is not exploited by front-runners).

175. *See* Leis, *supra* note 124, at 24 ("Up to a few years ago, [order anticipators] traded ahead on orders that were for example unwittingly or unintentionally exposed by brokers. Nowadays algorithms used by HF traders are much more efficient and allow a wide variety of techniques to extract a trading surplus.").

176. *See* SEC Concept Release, *supra* note 30, at 3609 (internal quotation marks omitted) ("The type of order anticipation strategy referred to in this release involves any means to ascertain the existence of a large buyer (seller) that does not involve violation of a duty, misappropriation of information, or other misconduct. Examples include the employment of sophisticated pattern recognition software to ascertain from publicly available information the existence of a large buyer (seller), or the sophisticated use of orders to 'ping' different market centers in an attempt to locate and trade in front of large buyers and sellers.").

177. *Id.*; *see also* Yoon, *supra* note 100, at 916–17 n.17.

play in the market ecosystem, just as they do in the actual ecosystem. In particular, they may drive the evolution of defensive mechanisms that make the market as a whole more robust and resilient against shock or exploitation.[178] A market with no parasitic traders may seem strong and healthy during placid times, but in reality may be catastrophically vulnerable to attack and exploitation should parasites arise.[179] In a market with a population of parasitic traders, market participants are forced to innovate in their own algorithms to avoid exploitation by the algorithms of others, leading to a rough equilibrium, robust against exploitation.[180] Even if imperfect, such a dynamic equilibrium may be preferable to the precarious stability that could arise from lack of parasitic pressure. To take only the most prominent example, the simplistic execution algorithm alleged to have set off the acute phase of the Flash Crash is one that could, and probably should, be punished out of existence by order anticipators.

It is also important to recall that the primary victims of parasitic trading are far from defenseless—they are themselves large, sophisticated traders making large transactions. Front-running, after all, depends on detecting orders large enough to move the market,[181] so we would expect institutional investors (and their customers) to be the parties most directly injured by widespread parasitic trading. Nor are resources spent by these institutional investors to parasite-proof their execution algorithms simply resources wasted. Large fundamental traders always have an incentive to reduce the information content of their trades, such

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178. *See* Ilia Dichev et al., *The Dark Side of Trading* 8 (Emory Univ. Law Sch. Pub. Law & Legal Theory Research Paper Series, Paper No. 11-143, 2011), *available at* http://papers.ssrn.com/S013/papers.cfm?abstract_id=1754215.

179. Examples of this phenomenon in biology abound. During the American Civil War, the apparently hale and hearty Midwestern farm-boys of the Union armies—lacking immunity against many childhood diseases common in cities—died in droves when they came into contact with the apparently weak and sickly Northeasterners. *See* JAMES M. MCPHERSON, THIS MIGHTY SCOURGE: PERSPECTIVES ON THE CIVIL WAR 120 (2007) ("Midwestern states in Union armies suffered a disease mortality rate 43 percent higher than those from the more urban states of the Northeast."). An even starker example is the vulnerability of the Native American population to diseases such as smallpox and bubonic plague that had long been endemic in Eurasia. *See* JARED DIAMOND, GUNS, GERMS, AND STEEL: THE FATES OF HUMAN SOCIETIES 77–78 (1997). A colorful example from literature is the vulnerability of the H.G. Wells's Martians to the common cold in his "War of the Worlds." *See* H.G. WELLS, THE WAR OF THE WORLDS 171 (David Y. Hughes ed., 1995).

180. McGowan, *supra* note 38, at ¶¶ 19, 42.

181. *See* Jerry W. Markham, *"Front-Running"—Insider Trading Under the Commodity Exchange Act*, 38 CATH. U. L. REV. 69, 70–71 (1988).

that they can capture more of the benefits of uncovering new information in the first place.

On the flip-side, the so-called parasites are simply using publicly available information—orders in the market—to make trading decisions, and in doing so making sure that information is fully reflected in the market price. As one CEO of a HFT firm has argued, this "is what the market is supposed to do."[182] As such, any regulatory steps to curb order anticipation not involving a violation of some exogenous duty would likely be misguided. They would, in effect, command market participants to trade without reference to one of the most salient pieces of public information regarding a security's value—what other sophisticated market participants think, as evidenced by their trading activity. Regulatory intervention would also arguably protect market participants who are fully capable of protecting themselves, and in so doing encourage the proliferation of poorly designed execution algorithms.[183]

C. *Unfairness*

A somewhat less precise but nonetheless widespread fear is that HFT is simply unfair. At its most basic, this fear is that the small retail investor is not able to compete with the heavy artillery of HFTs, and that even traditional large non-HFT institutional investors are, or soon will be, unable to keep up.[184] Several more specific market practices are often singled out as systematically unfair. I will address three of these practices: flash orders, co-location, and direct data feed access.

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182. Richard Gorelick, CEO of RGM Advisors, TABB Group's SEC Roundtable, *available at* http://tabbforum.com/opinions/tbd-3.

183. Gomber et al., *supra* oote 45, at 60–61; Matt Prewitt, Note, *High-Frequency Trading: Should Regulators Do More?*, 19 MICH. TELECOMM. & TECH. L. REV. 131, 151 & n.137 (2012).

184. Richard Gorelick, CEO of the prominent HFT firm RGM Advisors, has sarcastically noted that HFT is typically portrayed in the press as "unfair, highly profitable and socially useless." Nina Mehta, *High-Frequency Traders Strike Back*, TRADERS MAG. (Sept. 22, 2009), http://www.tradersmagazine.com/news/hft-firms-strike-back-104398-1.html?pg=1.

Flash orders are a somewhat unusual procedure.[185] Consider the following example. A trader places an order to buy 1,000 shares of a certain stock. The order is routed to an exchange, and the exchange determines that there are no sellers available on the exchange at the best price available nationwide. As explained above, the exchange traditionally has had the option of either routing the order to another exchange or canceling the order.[186] Flash orders, however, provide a third option. With a flash order, instead of immediately re-routing or canceling the order, the exchange "flashes" the order to its customers, making it available for a fraction of a second.[187] Anyone who sees the order and desires to sell to the buyer at the best-quoted price can do so during that split second.[188]

The purpose of this procedure is to allow market participants—the seller in this example—to trade without first placing an order that will be visible in the limit order book.[189] As noted above,

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185. *Cf.* Austin J. Sandler, *The Invisible Power of Machines: Revisiting the Proposed Flash Order Ban in the Wake of the Flash Crash*, 2011 DUKE L. & TECH. REV. 003, ¶ 4 ("These trading methods are obscure, the technology behind them is highly-sought after, their details are kept secret, and the implications for the market are uncertain.").

186. *See* Lawrence Harris, *The Economics of Flash Orders*, U.S.C. MARSHALL SCHOOL OF BUSINESS 1 (Dec. 4, 2009), *available at* http://www.sec.gov/comments/s7-21-09/s72109-97.pdf (describing the process of a flash order).

187. *Fact Sheet: Banning Marketable Flash Orders*, U.S. SECS. AND EXCH. COMM'N (Sept. 17, 2004), http://www.sec.gov/news/press/2009/2009-201-factsheet.htm.

188. The SEC has described the mechanics of a flash order as follows:

> An order to buy is "flashed" by the exchange that received the order when the exchange has determined it has no willing seller at the best quoted price. Rather than seeking out a seller in a competing exchange or market, the exchange 'flashes' the order to certain of its participants. By doing this, the exchange is able to seek out willing sellers on its market who may have decided not to publicly display their sell price.
>
> Using high-speed technology, potential sellers that receive the flash can see the buy order and, within a fraction of a second, respond with their own order to execute against the flashed order. The time periods vary in length, but generally are one second or less.
>
> If there is no response to the flashed order, the exchange generally will route orders away to execute against the best-priced quotations on other markets.

Id.

189. The trader whose order is "flashed" may also benefit from getting a liquidity rebate for technically being the liquidity-supplying resting order. *See* SEC Concept Release, *supra* note 30, at 3608. In addition, the exchange itself benefits from being able to fulfill the order itself, rather than having to reroute it to a competitor for execution. *See* Nina Mehta, *Flash Order Debate Moves to Options After Direct Edge Bows Out*, BLOOMBERG (Mar. 1, 2011) [hereinafter Mehta, *Flash Order*], http://www.bloomberg.com/news/print/2011-03-01/flash-order-debate-moves-to-options-after-direct-edge-bows-out.html ("Flashing allows venues to match orders by soliciting trading responses from users instead of

merely placing an order can cause the price to move against a large trader.[190] Front-running is, in part, designed to exploit this tendency. Flash trading helps to alleviate this problem. The seller is able to participate in the market without first revealing her selling interest to the world.[191]

Whatever their advantages, flash orders also contribute to at least an appearance of unfairness. The basic problem is easy to see. In order to take advantage of a flash order, one needs to be able to observe, evaluate, and respond to the flash order in the fraction of a second it is in existence.[192] Doing so requires the expensive technology utilized by HFTs—a small investor sitting at home with a laptop and an E-Trade account will not take advantage of any flash orders.[193] The SEC, in proposing a never-implemented ban on flash trading, suggested that flash orders "could lead to a two-tiered market in which the public does not have access, through the consolidated quotation data streams, to information about the best available prices for U.S.-listed securities that is available to some market participants through proprietary data feeds."[194] At root, this concern simply boils down to a

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sending buy or sell requests that they can't fill to rivals quoting better prices.").

190. Yoon gives a simplified example involving a wine expert who desires to keep her trading interest in a certain wine secret, because revealing her buying interest would cause other market participants to revise their estimates of the wine's value, causing the market price to rise even before she is able to buy the wine. Flash orders would potentially enable her to make a purchase without first revealing her trading interest. Yoon, *supra* note 100, at 930–31. Comparably, the mere fact that Warren Buffett is interested in buying stock in a particular company can cause the company's stock to go up significantly, raising the price he himself would have to pay if he is unable to buy before his interest is discovered.

191. At the same time, flash orders also create a new opportunity for front-running on the flashed order. The buyer in our example got the best-quoted price available nationally, as required. At least potentially, however, HFTs could spot the flash order and trade in front of it before the flash order expires and is rerouted to another exchange. Thus, flash orders could conceivably contribute to the parasitic trading discussed earlier. *See supra* Part III.B. While concluding that the risk is overblown, a December 2009 article noted that "several commentators and pundits have complained bitterly that flashes expose information that may allow traders to 'front-run' orders." Michelle Price, *So Who is Afraid of the Flash Trade?*, THE BANKER (Dec. 1, 2009), http://www.thebanker.com/tech-trading/trading/trading-so-who-is-afraid-of-the-flash-trade?ct=true; *see also* Cristina McEachern Gibbs, *Laying Down the Law*, WALL ST. & TECH., Nov. 1, 2009, at 20 (stating that flashing an order "gives the recipient the ability to front-run the customer whose order has been flashed").

192. *Fact Sheet: Banning Marketable Flash Orders*, *supra* note 187.

193. *Id.*

194. Elimination of Flash Order Exception from Rule 602 of Regulation NMS, Exchange Act Release No. 34,60684, 74 Fed. Reg. 48,632, 48,633 (Sept. 23, 2009). Direct

question of whether it is "fair" to effectively give first crack at an order to those with the resources and sophistication to obtain and utilize the necessary technology.[195]

A second HFT-related market practice that has come under fire as "unfair" is co-location. In seeking to reduce latency, HFTs will often seek to place their computers as physically close to an exchange's data center as possible.[196] Doing so minimizes the distance data needs to travel between computers, and thus—due to the finite speed of electronic signals—the communications delay.[197] Many trading centers rent "rack space" on-site, so that HFTs and other proprietary traders can locate their computers at the exchange, right next to the exchange's own servers.[198] Exchanges must receive SEC approval for offering co-location services,[199] and the SEC requires that "terms of co-location services

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Edge, an exchange that was a leader in flash trading, has vigorously disputed this characterization, arguing that flash orders actually democratize access to liquidity that is not publicly displayed. Letter from Eric W. Hess, Gen. Counsel, Direct Edge, LLC, to Elizabeth Murphy, Sec'y, U.S. Sec. and Exch. Comm'n (Nov. 20, 2009), *available at* http://www.sec.gov/comments/s7-21-09/s72109-82.pdf ("[W]e do not view technology that instantaneously aggregates passive and aggressive liquidity as creating a two-tier market. Rather, flash technology democratizes access to the non-displayed market and in this regard, *removes* different 'tiers' in market access.").

195. Flash orders could also potentially have liquidity and efficiency effects. In short, flash orders allow traders to avoid having to place publicly visible orders in the limit order book, potentially reducing liquidity and the public availability of full supply and demand information. *See infra* notes 217–23, 264–65 and accompanying text.

196. Gomber et al., *supra* note 45, at 10 n.9 (stating that market participants use co-location services "for the purpose of locating their network and computing hardware closer to the matching engines" in order to control latency issues).

197. *See* Charles M. Jones, *What Do We Know About High-Frequency Trading?* 10 (Columbia Business School, Research Paper), *available at* http://online.wsj.com/public/resources/documents/HFT0324.pdf. At the speed of light, each additional foot of wire down which an electronic signal must travel increases the delay by approximately 1 nanosecond (one billionth of a second). While this might not sound like much, HFTs whose computers are even one Manhattan crosstown block further away from the exchange than their rivals will suffer a speed disadvantage of at least 2 microseconds (~1000 feet each way).

198. *See* SEC Concept Release, *supra* note 30, at 3598 ("To further reduce latency in transmitting market data and order messages, many exchanges also offer co-location services that enable exchange customers to place their servers in close proximity to the exchange's matching engine."); *see also* Gomber et al., *supra* note 45, at 10 ("In order to reduce latency, automated traders make use of co-location or proximity services that are provided by a multitude of market operators. By co-locating their servers, market participants can place their trading machines directly adjacent to the market operator's infrastructure.").

199. SEC Concept Release, *supra* note 30, at 3610 (citing 15 U.S.C. § 78c(a)(27) (2012)) ("Exchanges that intend to offer co-location services must file proposed rule changes and receive approval of such rule changes in advance of offering the services to customers."). The NASDAQ received SEC approval for co-location in 2009. *See* Vince Veneziani, *SEC*

must not be unfairly discriminatory, and the fees must be equitably allocated and reasonable."[200]

Like any kind of preferential access, co-location services can be seen as inherently unfair. Co-location raises the possibility of special treatment for preferred customers, but even where it is offered in a facially non-discriminatory fashion, co-location will naturally favor those with the resources and sophistication to take advantage of it.[201]

A third, related fairness concern is the availability of direct data feeds from exchanges. Many exchanges offer customers the ability to receive data feeds directly from the exchange at the same time the data is provided to the consolidated quotation system.[202] Under the applicable regulations, exchanges can transmit data to their customers at the same time they transmit the data to the consolidated system.[203] To the extent these customers can process the data more quickly than the time it takes for the data to be routed through the consolidated quotation system, they can gain a crucial speed advantage.[204]

Gives Kiss of Approval to NASDAQ Co-Location, BUS. INSIDER (Oct. 23, 2009), http://www.businessinsider.com/nasdaq-co-location-business-to-be-regulated-by-the-sec-2009-10.

200. SEC Concept Release, *supra* note 30, at 3610 (citing 15 U.S.C. §§ 78f(b)(4), (5) (2012)).

201. *Id.*

202. *See id.* at 3601 ("In addition to providing quotation and trade information . . . for distribution in consolidated data, many exchanges and ECNs offer individual data feeds directly to customers that include information that is provided in consolidated data."); SEPTEMBER CFTC-SEC STAFF REPORT, *supra* note 1, at 36 ("Most of the firms we interviewed are concerned with data latency in the milliseconds (such as market makers, internalizers, and HFTs) subscribe directly to the proprietary feeds offered by the exchanges.").

203. *See* SEC Concept Release, *supra* note 30, at 3611 (citing Regulation NMS Release, *supra* note 48, at 37,567) ("When it adopted Regulation NMS in 2005, the Commission did not require exchanges . . . to delay their individual data feeds to synchronize with the distribution of consolidated data, but prohibited them from independently transmitting their own data any sooner than they transmitted the data to the plan processors.").

204. *Id.* at 3611 ("Given the extra step required . . . to transmit market data to plan processors, and for plan processors to consolidate the information and distribute it [to] the public, the information in the individual data feeds . . . generally reaches market participants faster than the same information in the consolidated data feeds."); Yoon, *supra* note 100, at 925 n.74 (noting that it takes approximately five to ten milliseconds for the consolidated quotation system to process and distribute information from the exchanges, and noting that "with the help of their super-fast computers and close location to the plan processors, high-frequency traders can receive the information in their individual data feeds provided by exchanges and ATSs before the rest of the market.").

As with co-location services, the SEC requires exchanges "that offer individual data feeds to make the data available on terms that are fair and reasonable and not unreasonably discriminatory."[205] The practice is nonetheless arguably unfair to retail investors. Again, only market participants with the wealth and sophistication required to pay for, receive, and process the data feeds in real time will be able to take advantage of such feeds. These traders—HFTs in particular—can gain still more of a speed advantage, receiving information, in a practical manner, before that information is available to the public. During the critical period of the Flash Crash, this problem became especially acute. Due to the flood of trading activity, average delays for NYSE stocks on the consolidated quotation system stretched to more than ten seconds, while proprietary data feeds containing the same information maintained delays of only eight milliseconds (0.008 seconds).[206] To the extent this speed advantage is also accompanied by disparities in the information provided—with the direct data feeds including additional information—the potential unfairness is even greater.[207]

The necessarily imprecise notion of unfairness makes it somewhat difficult to say who might be "injured" by these practices. The principal worry is that they will, over time, result in a transfer of resources away from long-term and retail investors to short-term and technologically sophisticated investors, without any compensating benefit to such investors or to market efficiency in general.[208] To the extent that these transfers result in long-term retail investors avoiding the equity markets, more systemically negative consequences are possible.

In some sense, however, the broadest fears that the sheer speed or sophistication of HFTs, in and of themselves, renders HFT uniquely "unfair" are misguided, if not entirely unfounded. In many ways, HFTs operate on a playing field that is, if any-

205. SEC Concept Release, *supra* note 30, at 3601; *see also* Regulation NMS Release, *supra* note 48, at 37,567.

206. SEPTEMBER CFTC-SEC STAFF REPORT, *supra* note 1, at 77.

207. SEC Concept Release, *supra* note 30, at 3611 ("[T]he consolidated data feeds include the best-priced quotations of all exchanges and certain ATSs and all reported trades. The individual data feeds of exchanges . . . generally will include their own best-priced quotations and trades, as well as other information, such as inferior-priced orders included in their depth-of-book.").

208. *See id.* at 3605.

thing, far more level than what previously existed. There have always been market participants with speed or other advantages. Traditionally, market "specialists" with special trading floor privileges would have physical speed and proximity advantages over ordinary traders.[209] Unlike specialists, HFTs are not granted any "special time and place privileges in exchange trading (nor are they subject to the affirmative and negative trading obligations that have accompanied such privileges)."[210] Arguably, the open access to co-location, data feeds, and flash orders to anyone willing and able to pay for them is far more "democratic" than what came before.[211]

Of course, "it could be worse . . . and was" is not necessarily a winning argument. But it is worth noting the essential strangeness of the argument that trading capabilities available to the well-financed and technically capable are somehow intrinsically unfair. It is not entirely unlike complaining that Boeing and Lockheed-Martin have an "unfair" advantage vis-à-vis a garage-workshop tinkerer in bidding on aircraft contracts.[212] Furthermore, retail investors who invest via large funds, or even trade through a major broker, can often piggyback on the sophistication of these larger entities. As the CFTC-SEC Initial Report emphasized, "[i]t is important to note that retail order flow is generally handled by [broker-dealers] who are also among those participants that use proprietary exchange feeds to make trading and routing decisions."[213]

It also bears repeating that total profits from HFT are likely in the single-digit billions, and apparently falling as markets adapt.[214] While these profits are large in everyday terms, they pale in comparison to the profits of even a single large investment

209. *See* Yoon, *supra* note 100, at 926–27.

210. SEC Concept Release, *supra* note 30, at 3607.

211. *See* Gibbs, *supra* note 191 (noting that "[a]nyone who wants to invest the resources can compete").

212. As Yoon puts it:

> This notion of the free market applies to other industries. For example, in the computer chip industry, a computer chip manufacturing company can invest a massive amount of capital in research and development, while ordinary people are also free to start their own research as long as they can obtain funding.

Yoon, *supra* note 100, at 937.

213. SEPTEMBER CFTC-SEC STAFF REPORT, *supra* note 1, at 77.

214. *See* Popper, *supra* note 97.

bank, and cannot plausibly be said to represent an enormous or unprecedented transfer of wealth from the weak and slow to the strong and fast.[215]

Finally, as will be discussed further in Part V, the specific "unfair" practices mentioned here are all amenable to regulation by the exchanges themselves. If non-HFTs find it disadvantageous to trade on exchanges offering flash orders, co-location, and direct data feeds, competitive pressure should force exchanges to curtail these practices. Indeed, a regulatory ban on flash orders would, at this point, be largely redundant, as trading venues have been backing away from them ever since they began to attract negative publicity.[216]

D. *Negligent or "Rogue" Algorithms*

The dangers surveyed thus far have primarily been intentional, in that they are the result of deliberately undertaken trading strategies, whether those strategies should be considered legitimate or not. Similar dangers, however, can arise from inadvertence on the part of HFTs and other algorithmic traders. In particular, poorly designed or buggy "rogue" algorithms can cause, and often have caused, extreme dislocations in security prices.

The Flash Crash itself is perhaps the most dramatic example of the chaos a poorly designed algorithm can cause, even if the faulty algorithm in question was not being used by HFTs. Though the conclusion remains controversial,[217] the joint CFTC-SEC report on the Flash Crash identifies a single large, algorithmically executed trade as providing the catalyst for the crisis portion of the Flash Crash.[218] A large long-term trader decided to sell ap-

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215. *See supra* Part I.B.

216. *See* Mehta, *Flash Order*, *supra* note 189.

217. *See, e.g.*, Hu, *supra* note 18, at 1704 ("Outsiders reject this CFTC-SEC narrative."); Easley et al., *supra* note 26, at 122–24. (arguing that order "toxicity," in the sense of the probability that market makers were being taken advantage of by informed traders, reached historic highs just before the crash, causing market makers to withdraw liquidity and flee the market); Ananth Madhavan, *Exchange-Traded Funds, Market Structure and the Flash Crash* 20 (Jan. 13, 2012), *available at* http://ssrn.com/abstract=1932925; Press Release, CME Group, CME Group Statement on the Joint CFTC-SEC Report Regarding the Events of May 6 (Oct. 1, 2010), *available at* http://investor.cmegroup.com/investor-relations/releasedetail.cfm?ReleaseID=513388 (arguing CME Group Markets "functioned property" and "operated as designed").

218. *See* SEPTEMBER CFTC-SEC STAFF REPORT, *supra* note 1, at 2.

proximately $4.1 billion in E-Mini S&P 500 ("E-Mini") futures contracts[219] using an algorithm designed to break up the trade into many smaller trades, in part to disguise the large change in position, and in part to avoid simply swamping available liquidity in the market.[220]

The algorithm was designed to target a rate of execution equal to 9% of the total E-Mini trading volume over the previous minute, but—disastrously—did not take price or total time into account.[221] Volume is a traditional proxy for liquidity, and "volume-targeting" is a time-honored method of executing large orders, but times have changed.[222] In a world of HFT, volume is not always a particularly good proxy for liquidity.[223] Especially under highly volatile market conditions—such as those that prevailed on the day of the Flash Crash—HFTs may engage in very large numbers of quick trades in an attempt to capture price movements. This large volume can mask the fact that this apparent liquidity is actually very shallow, as the HFTs typically have no appetite for accumulating any significant position.

In any event, under the volatile conditions of the early afternoon of May 6, 2010, the $4.1 billion sale, targeted at 9% of volume, was executed in only twenty minutes.[224] In the face of this selling, liquidity quickly dried up, driving the price of the E-Mini down by 3% in approximately four minutes, and setting off a chain of liquidity crises as traders sought to arbitrage this sudden price differential between the E-Mini and the S&P 500 itself.[225]

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219. The holder of an E-Mini contract is entitled to a payment of 50 times the value of the S&P 500 index at the time the contract expires. The E-Mini is one of the most widely traded stock market index futures contract, allowing both speculation and hedging of other positions. *See Equity Index Products: E-Mini: S&P 500 Futures*, CME GROUP, http://www.cmegroup.com/trading/equity-index/us-index/e-mini-sandp500_contract_specifications.html (last visited Dec. 6, 2013).

220. *See* SEPTEMBER CFTC-SEC STAFF REPORT, *supra* note 1, at 1–2.

221. *Id.* at 2.

222. *See, e.g.*, X. Frank Zhang, *High-Frequency Trading, Stock Volatility, and Price Discovery* 8 (2010), *available at* http://ssrn.com/abstract=1691679.

223. *See id.* ("[A]s illustrated in the flash crash on May 6th, 2010, high trading volume generated by HFT is not necessarily a reliable indicator of market liquidity, especially in times of significant volatility. The automated execution of large orders by fundamental investors, which typically use trading volume as the proxy for liquidity, could trigger excessive price movement, especially if the automated program does not take prices into account."); *see also* Sornette & Von der Becke, *supra* note 43, at 4 ("[L]iquidity is not equal to volume. HFT arguably increases the volume of transactions.").

224. *See* SEPTEMBER CFTC-SEC STAFF REPORT, *supra* note 1, at 2.

225. *Id.* at 3–4.

Thus, if you believe the CFTC-SEC version of events, the Flash Crash is largely attributable to an outdated algorithm run amok under unusual market circumstances.

Even more stark examples of rogue algorithms exist—though none with such dramatic consequences. On February 3, 2010, just minutes before the close of trading, Infinium Capital Management—a respected Chicago-based HFT boutique—began "live-testing" a new oil-futures trading algorithm.[226] The algorithm immediately began flooding the market with uncontrolled orders, which Infinium's order control systems failed to stop.[227] In a matter of five seconds, the algorithm placed orders equivalent to nearly 4% of average daily volume, before the order router "choked" and crashed.[228] Infinium rapidly unwound the inadvertent trades in the minutes before the market closed, losing more than $1 million in the process.[229] The flood of orders caused the price of oil to spike by 1.3% in a matter of seconds, before mysteriously slumping by about 5% over the next few days.[230] In addition to the million dollar trading loss, Infinium was fined $850,000 by the Chicago Mercantile Exchange Group, which manages the Chicago and New York Mercantile Exchanges, for "acts detrimental" to the market.[231]

Perhaps the most public HFT debacle was the August 1, 2012, near-implosion of Knight Capital Group, a large HFT group engaged in market making that constituted, at its peak, approximately 10% of all volume on the NYSE and NASDAQ.[232] On the

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226. *See* Jonathan Spicer, *Firm Faces Civil Charges for Oil Trading Mayhem*, REUTERS, Aug. 25, 2010 [hereinafter Spicer, *Oil Trading Mayhem*], *available at* http://www.reuters.com/article/2010/08/25/us-trading-oil-probe-idustre67o2qq20100825.

227. *See id.*

228. *Id.*; *see also* Sornette & Von der Becke, *supra* note 43, at 13 (internal quotation marks omitted).

229. *See* Spicer, *Oil Trading Mayhem*, *supra* note 226.

230. *Id.*

231. *See CME Fines Infinium $850K for Trading Glitches*, FUTURESMAG (Nov. 29, 2011) (internal quotation marks omitted), http://www.futuresmag.com/2011/11/29/cme-fines-infinium-850k-for-trading-glitches. In addition to the fine levied against Infinium itself, the trader responsible for entering the orders was personally fined $50,000 and issued a temporary ban against trading on the Mercantile Exchanges. *See High-Frequency Oil Trader Fined for Runaway Trades*, REUTERS, Dec. 23, 2011, *available at* http://www.reuters.com/article/2011/12/23/us-cme-infinium-trader-idUSTRE7BM1BF20111223.

232. *See* Stephanie Ruhle et al., *Knight Trading Loss Said to Be Linked to Dormant Software*, BLOOMBERG (Aug. 14, 2012), http://www.bloomberg.com/news/2012-08-14/knight-software.html.

morning of August 1, a new market making algorithm installed overnight went berserk, entering huge numbers of market orders, and causing prices in nearly 150 companies to be disrupted, with some rising by several hundred percent.[233] The broken algorithm caused Knight to lose approximately $440 million—three times its annual earnings—in the first thirty minutes of trading.[234] The NYSE stepped in and cancelled trades in a handful of securities as "clearly erroneous," but left Knight to take the vast bulk of its losses.[235] Within two days, Knight—which is itself a publicly traded company—saw its stock price fall by 75%, and was forced to seek an emergency injection of capital.[236] Despite the injection of funds, Knight was unable to survive as an independent firm, and was ultimately bought by a rival market making firm.[237]

As is clear from the examples above, regulatory processes already exist for identifying and punishing users of rogue algorithms. More broadly, however, there is an inherent tension in trying to prevent harms from negligence, in that the greatest harm tends to fall on the negligent party itself. That is, the consequences of a shoddy or glitchy algorithm are likely to be most dire for the party responsible for the algorithm in the first place.

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233. *See* Maureen Farrell, *Knight's Bizarre Trades Rattle Markets*, CNN (Aug. 1, 2012), http://buzz.money.cnn.com/2012/08/01/trading-glitch/?iid=H_MKT_News; Caroline Valetkevitch & Chuck Mikolajczak, *Error by Knight Capital Rips Through Stock Market*, REUTERS, Aug. 1, 2012, *available at* http://www.reuters.com/article/2012/08/01/us-usa-nyse-tradinghalts-idusbre8701bn20120801.

234. *See* Matthew Heusser, *Software Testing Lessons Learned From Knight Capital Fiasco*, CIO (Aug. 14, 2012), http://www.cio.com/article/713628/software_testing_lessons_learned_from_Knight_capital_fiasco.

235. *See* Pallavi Gogoi, *Knight Capital Blames Software For Computer Trading Glitch*, USA TODAY (Aug. 2, 2012), http://usatoday30.usatoday.com/money/economy/trade/story/2012-08-02/Knight-Capital-trading-glitch/56692822/1; Bob Pisani, *The Knight Fiasco: How Did it Lose $440 Million?*, CNBC.COM (Aug. 2, 2012), http://www.cnbc.com/id/48458289.

236. Pallavi Gogoi & Christina Rexrode, *Cost of Glitch for Knight Capital: $440 Million*, ASSOCIATED PRESS WORLDSTREAM (Aug. 5, 2012), http://bigstory.ap.org/article/cost-glitch-knight-capital-440-million.

237. Halah Touryalai, *Knight Capital's Trading Disaster Ends In Merger With Getco, Joyce Named Chairman*, FORBES (Dec. 19, 2012), http://www.forbes.com/sites/halahtouryalai/2012/12/19/knight-capitals-trading-disaster-ends-in-merger-with-getco-joyce-named-chairman/. Other high-profile examples include the March 23, 2012 system problems that caused BATS Global Markets—a stock exchange—to withdraw its own initial public offering ("IPO") on the first day of trading following a glitch that caused its stock to fall from $16 to four cents, and the system problems that plagued the NASDAQ during Facebook's May 18, 2012 IPO. Ben Rooney, *BATS: Well, This is Awkward*, CNN MONEY (Mar. 23, 2012), http://money.cnn.com/2012/03/23/markets/bats-ipo/; *see* Henry T.C. Hu, *Efficient Markets and the Law: A Predictable Past and an Uncertain Future*, 4 ANNUAL REV. FIN. ECON. 1, 19–20 (2012); Hu, *supra* note 18, at 1705–06.

While no figure has been made public, the user of the execution algorithm that allegedly precipitated the Flash Crash undoubtedly lost tens or even hundreds of millions of dollars as a result of the botched execution of the $4 billion sell order. Similarly, it is difficult to see what sanction a regulator could have imposed on Knight for its half-hour adventure in rogue trading that would be more consequential than the instant $400 million loss, which effectively ended Knight's life as an independent firm. While others were undoubtedly hurt in these episodes (and still others undoubtedly benefited), from a deterrence standpoint it is hard to see that the market itself systematically under-deters such negligence. The main goal with regard to negligence-type harms, then, as elaborated below, is simply to ensure that a responsible party is appropriately on the hook when mistakes are made.

E. *Efficiency Harms*

It is sometimes speculated that HFT could reduce allocative efficiency by driving prices away from fundamental values.[238] Perhaps the most basic function of capital markets is to generate accurate prices so that resources can be allocated to their most productive uses.[239] If HFT reduces efficient price discovery and causes departures from accurate pricing, it could result in distortions and inefficiencies throughout the economy.

On the one hand, to the extent that HFT is at least partly responsible for the types of extreme market movements observed in the Flash Crash and the various mini-flash crashes, it is patently obvious that HFT leads to substantial departures from fundamental value. Nothing happened during the Flash Crash that justified believing U.S. equities were fundamentally worth nearly $1 trillion less at 2:45 p.m. than they were at 2:30 p.m. or 3:00 p.m. Nor can the other dramatic spikes and crashes described above be explained by reference to changing expectations for the given firm's prospects.

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238. Zhang, *supra* note 222, at 1–2, 11. The notion of "fundamental value" is notoriously sticky. For our purposes, it is not necessary to be too precise, and we can simply take it to mean "prices justified by reference to future expected cash flows." *See* Kenneth Ferris & Barbara Petitt, *Valuation for Mergers and Acquisitions: An Overview*, FIN. TIMES PRESS (Aug. 5, 2013), http://www.ftpress.com/articles/article.aspx?p=2109325.

239. Zhang, *supra* note 222, at 3 n.2 (describing efficiently allocating "scarce capital resources to their most productive use" as "the key objective of the capital market").

More broadly, if HFT has led to greater volatility in stock prices, those prices will, by definition, stray further from fundamental value on average, assuming the real economy itself has not become more volatile. At root, the notion that stock prices will reflect the best estimate of fundamental value depends on the notion that investors are basing trading decisions on material information about the underlying firms' prospects.[240] HFTs, however, generally trade on small-scale price moves, caring little for the individual stock's actual price. With the rise of HFT, "when most trades are based on statistical and often short-lived correlations in stock returns and investors do not hold stocks for the investment purpose (HFT traders typically do not carry any position overnight), the presence of efficient pricing becomes more questionable."[241] The harms stemming from a market with less accurate pricing would be truly systemic, potentially resulting in misallocation of resources throughout the economy.

The actual evidence as to HFT's effect on efficient pricing is still preliminary and mixed. The SEC has noted that HFT's arbitrage activities may help to limit moves away from fundamental value, and "often may contribute to the quality of price discovery in a stock."[242] This notion is supported by several empirical investigations suggesting that HFT has increased the efficiency with which new information is incorporated into securities prices and reduced price discrepancies between related securities.[243] Another study finds that HFT activity causes prices to overreact to news about fundamentals, with prices taking a substantial amount of time to recover from the overreaction.[244]

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240. *See* Ray Ball & Philip Brown, *An Empirical Evaluation of Accounting Income Numbers*, 6 J. ACCT. RES. 159, 160, 164–65 (1968); S.P. Kothari, *Capital Markets Research in Accounting*, 31 J. ACCT. & ECON. 105, 108–09 (2001); Charles M.C. Lee, *Market Efficiency and Accounting Research: A Discussion of 'Capital Market Research in Accounting' by S.P. Kothari*, 31 J. ACCT. & ECON. 233, 235–36 (2001).

241. Zhang, *supra* note 222, at 1–2.

242. SEC Concept Release, *supra* note 30, at 3608.

243. *See* IOSCO REPORT, *supra* note 134, at 25 ("Some empirical studies suggest that HFT has a positive impact on efficiency of the price discovery mechanism. An important role identified as being performed by HFT firms is that they contribute to price [convergence] across different trading venues."); Brogaard, *supra* note 91, at 64; Terrence Hendershott & Ryan Riordan, *Algorithmic Trading and Information* 22–23 (Net Inst., Working Paper No. 09-08, 2009), *available at* http://www.netinst.org/Hendershott_Riordan_09-08.pdf.

244. Zhang, *supra* note 222, at 34.

It should, however, be noted that misallocations of capital would be more likely to arise if HFT resulted in prolonged deviations from fundamental value. Spikes and crashes lasting milliseconds—or even minutes and hours—are unlikely to result in substantial misallocation of resources, no matter how large the anomaly.[245] As such, the urgency of regulation on these grounds is attenuated.

More serious, but also more speculative, is the risk that parasitic trading could undermine the conditions necessary for markets to generate and synthesize information, again threatening the allocative function of markets. Traders have an incentive to uncover new information only to the extent that they can profit by trading on that information. If parasitic strategies reduce the profitability of generating new information, they also reduce the incentive to generate it in the first place. In particular, if large traders are unable to hide their trades from parasitic HFTs, it would reduce the ability of those investors to profit from generating or uncovering new information and imperil the mechanisms on which market efficiency depends.[246] Thus, parasitic trading poses the additional systemic risk of impairing the information-generating function of markets. As noted above, however, large fundamental investors are likely well-placed to protect themselves via more sophisticated order-execution algorithms.[247]

The need to develop such algorithms, and other responses to HFT, has led some commentators to decry a "technology arms race."[248] As HFTs develop more sophisticated pattern recognition

245. *See id.* at 3 n.2 ("It is unclear how a price discovery delayed by 50 millisecond [sic] or 2 seconds would affect resource allocation in any meaningful way.").

246. *See* Fischel & Ross, *supra* note 143, at 509–10 ("Traders must be allowed to disguise their trades to avoid disclosing the information they possess to other traders."); Gilson & Kraakman, *supra* note 147, at 577–79; Grossman, *supra* note 147, at 585 ("The price system can be maintained only when it is noisy enough so that traders who collect information can hide that information from other traders."); Sanford J. Grossman & Joseph E. Stiglitz, *On the Impossibility of Informationally Efficient Markets*, 70 AM. ECON. REV. 393, 393 (1980) ("We propose here a model in which there is an equilibrium degree of disequilibrium: prices reflect the information of informed individuals (arbitrageurs) but only partially, so that those who expend resources [to uncover new information] do receive compensation.").

247. *See supra* Part III.A.

248. *See, e.g.*, Yoon, *supra* note 100, at 922 (quoting Liz Mayer & Emily Lambert, *The New Monsters of Wall Street*, FORBES, Sept. 21, 2009, at 40, 44) (internal quotation marks omitted) ("HFT has led to a 'technology arms race' among its players, who invest hundreds of millions of dollars into developing trading software and algorithms."); Sornette & Von der Becke, *supra* note 43, at 20 (suggesting measures to prevent a "technology arms race");

algorithms, other traders seeking to avoid detection and exploitation must revise and improve their own algorithms, potentially resulting in significant deadweight losses.[249] As is often the case, discussion of a technological arms race may simply reflect the (well-founded) fear that innovation will upset the status quo and undermine the legacy firms that benefit from that status quo. As such, claims of a destructive arms race should be met with the same skepticism that would greet similar claims made by, say, an auto manufacturer.

Another kind of broad "efficiency" harm must be taken more seriously: the harm that might result if large numbers of investors withdraw from the markets altogether due to the belief that the market is in some way "rigged" or overly dangerous. Indeed, there is some evidence of large outflows of investment capital following the Flash Crash, amid widespread speculation that HFTs played at least a part in the fiasco.[250] These outflows can potentially generate economy-wide harm. A reduction in invested capital can lead to increased costs of capital for public companies in addition to whatever social harms might flow from small investors being effectively frozen out of the stock markets.[251] These risks emphasize the importance of developing an overall regulatory strategy that is perceived as effective by the general investing public.

F. *Overburdening of Market Infrastructure*

Finally, there have been claims that HFTs are over burdening market infrastructure by the sheer volume of their trading activity. HFTs are, indeed, profligate users of exchange infrastructure. Despite the small number of HFTs, they account for more than half of all trades on U.S. exchanges (although a slightly lower

Leis, *supra* note 124, at 76 (positing the existence of a "technological arms race" in United States and European equity markets); IOSCO REPORT, *supra* note 134, at 28 ("[A]n academic participating in the IOSCO panel sessions stressed the risk that HFT participation in the market may lead to an *arms race*, as market participants compete against one another to possess the fastest and most sophisticated technology, which is very costly.").

249. As is noted subsequently, to the extent innovation in algorithms is generally beneficial, any costs must be set against these benefits. *See infra* Part IV.A.

250. Frank Zhang & Stuart B. Powell, Viewpoint, *The Impact of High-Frequency Trading on Markets: Before Rushing to Judge HFT, Investors Need to Understand the Empirical Evidence*, CFA INST., Mar. 2011, at 10, 11.

251. *See* IOSCO REPORT, *supra* note 134, at 27; Madhavan, *supra* note 217, at 1.

percentage than a few years ago).[252] Because HFT strategies typically involve unusually high order-to-trade ratios—with the vast majority of orders being canceled without being executed—HFTs account for an even higher proportion of total data traffic on exchanges.[253] Even without any deliberate malfeasance on the part of HFTs, this flood of data can strain exchanges, increasing latency and system instability.[254] To cope with the enormous quantities of data, exchanges have been forced to invest hundreds of millions of dollars in technological infrastructure.[255]

Some reports claim that HFTs engage in a tactic known as "quote stuffing," deliberately spamming an exchange with a huge number of rapid orders and cancellations.[256] The purpose of quote-stuffing is two-fold. First, it can cause a slowdown in the consolidated quotation system, increasing the chance of arbitrage opportunities from differences between real-time conditions and orders appearing in the consolidated data.[257] Second, rival HFTs must process and evaluate the quote-stuffer's orders as if they are potentially genuine, while the quote-stuffer's algorithms can safely ignore them, knowing them to be meaningless.[258] Thus, the burst of orders can "distract and slow down rival HFT firms," giving the quote-stuffer a time advantage.[259] Quote-stuffing is a potentially inexpensive way for HFTs to gain the speed advantage that is so crucial in making HFT strategies profitable.

Some commentators—pointing to the delays in the consolidated quotation system noted above—have suggested that quote-

252. *See supra* note 100.

253. *See* Yoon, *supra* note 100, at 922.

254. Prewitt, *supra* note 183, at 133; Jared F. Egginton et al., *Quote Stuffing* 2 (Working Paper, 2013), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1958281.

255. Yoon, *supra* note 100, at 938; *Moving Markets: Shifts in Trading Patterns are Making Technology Ever More Important*, THE ECONOMIST (Feb. 2, 2006), *available at* http://www.economist.com/node/5475381.

256. Egginton et al., *supra* note 254, at 1; Leis, *supra* note 124, at 64.

257. *See* Leis, *supra* note 124, at 64–65; Harold Malmgren & Mark Stys, *The Marginalizing of the Individual Investor: The Inside Story of Flash Crashes, Systemic Risk, and the Demise of Value Investing*, INT'L ECON., Summer 2010, at 22, 24.

258. *See* Leis, *supra* note 124, at 64; Madhavan, *supra* note 217, at 6.

259. *See* Leis, *supra* note 124, at 64; Madhavan, *supra* note 217, at 6 ("Intentional quote stuffing allegedly works by jamming the signal bandwidth of other fast traders who must process quotation changes that *only* the trader posting the rapid quote changes can safely ignore. More generally, the term refers to sudden spikes in quotation activity that appear unrelated to fundamental news events or trading volumes.").

stuffing may have played a significant role in the Flash Crash. Nanex, LLC, a developer of market data feed technology and critic of HFT, has argued that quote-stuffing activity caused the delays, which then led to a vicious circle as algorithmic traders sought to arbitrage a phantom price difference between quotes on the NYSE—which were delayed—and quotes on other exchanges.[260] The CFTC-SEC Initial Report on the Flash Crash acknowledged that "[i]t has been hypothesized that these delays [in the quotation data were] due to a manipulative practice called 'quote-stuffing' in which high volumes of quotes are purposely sent to exchanges in order to create data delays that would afford the firm sending these quotes a trading advantage," but concluded that it was unlikely the data delays played a large role in the extreme market movements.[261]

To the extent these activities are manipulative, the injured parties are largely the same as those already discussed. In addition, however, at least a portion of the harm falls upon the exchanges themselves as the performance of their systems is degraded. The situation is somewhat akin to an email scammer who uses a virus to cause a third party's computer to begin sending thousands of solicitation emails. The targets of the scheme are the recipients of the emails, but the hacked computer also suffers slow-downs and degraded overall performance. Systemic harms are possible as well, if system interference is severe enough to hamper efficient price discovery on the markets.[262]

If excessive HFT activity is clogging up market infrastructure, imposing costs on market operators, then the case for fees designed to shift those costs back to the responsible traders appears strong. Likewise, if savvy HFTs are exploiting liquidity rebate structures to make a profit without generating a corresponding benefit by providing genuine liquidity, the case for an overhaul of those structures is equally strong. Nonetheless, the case for ac-

260. *See Analysis of the Flash Crash*, NANEX (June 18, 2010), http://www.nanex.net/20100506/FlashCrashAnalysis_CompleteText.html. Nanex goes on to claim that "as more HFT systems start doing this, it is only a matter of time before quote-stuffing shuts down the entire market from congestion." Andrew Appel, *Did a Denial-of-Service Attack Cause the Stock-Market "Flash Crash?"*, FREEDOM TO TINKER (June 25, 2010), http://freedom-to-tinker.com/blog/appeal/did-denial-service-attack-cause-stock-market-flash-crash/.

261. SEPTEMBER CFTC-SEC STAFF REPORT, *supra* note 1, at 79.

262. *See* Egginton et al., *supra* note 254, at 3 (finding that stocks subject to especially intense quoting activity experience reduced liquidity, higher spreads, and higher volatility).

tion is not the same as the case for regulation. In this case, as explained further below, the trading venues themselves have both the ability and the incentive to make such improvements. Regulators are unlikely to be particularly competent in designing the necessary fee structures themselves, and take the risk of imposing a one-size-fits-all solution that merely serves to cut off innovation and experimentation to find optimal systems.

IV. THE NOVEL RISK OF EXTREME VOLATILITY EVENTS

A. *HFT-Induced Volatility*

The risk of extreme volatility events differs from the risks discussed in Part III in four essential ways. First, the risk is, in important ways, unique to HFT. Second, the risk is potentially serious. Third, the risk of extreme volatility events can be only partially mitigated by private actors. Finally, volatility spikes are highly visible, and thus have attracted a great deal of attention from the media and the investing world. These features combine to make extreme volatility events a prime target for new regulation.

An important challenge for policymakers is that the magnitude of the risk of HFT-related extreme volatility events is uncertain. On the one hand, it is clear that the emergence of HFT has resulted in dramatically reduced spreads and faster execution times, at least under ordinary conditions.[263] On the other hand, extreme volatility events—such as the Flash Crash and the hundreds of mini-flash crashes in individual securities—are taking place at a greater frequency than ever before.[264] The evidence is mixed as to whether HFTs, on net, increase or decrease volatility.[265] Surveying the published research, Sornette and Von der

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263. *See* IOSCO REPORT, *supra* note 134, at 26 ("Execution speed has fallen from seconds to as little as microseconds within ten years. Some measures of liquidity have improved with implicit trading costs (like quoted bid-ask spreads) and explicit costs (e.g., trading fees per transaction) declining."); Zweig, *supra* note 134 (reporting by way of example that online brokerage fees from Charles Schwab total, at most, 0.3%, whereas they were at least 2% a decade ago).

264. *See* Graham Bowley, *The New Speed of Money*, N.Y. TIMES, Jan. 2, 2011, at BU1 (noting that "[s]ince May [of 2010] there have been regular mini-flash crashes in individual stocks for which, some say, there are still no satisfactory explanations").

265. *See* Madhavan, *supra* note 217, at 7 (summarizing the state of research on the question, and concluding that "[r]ecent[] evidence . . . is mixed on the impact of high-

Becke conclude that "[w]hile volatility appears to be reduced at the level of individual stocks' bid/ask prices, [HFT] may have amplified tail risk and increased volatility at the macro level."[266]

Some of this increased incidence of extreme volatility may be due to deliberate malfeasance, such as momentum ignition or other forms of illegal market manipulation.[267] Some may be the result of front-running strategies, which potentially amplify the effects of trades by large long-term investors.[268] Some may be a result of HFTs severing the traditional connection between trading volume and liquidity.[269] Legacy order-execution algorithms—like the one the U.S. Commodity Futures Trading Commission ("CFTC") and SEC suspect of causing the Flash Crash—often use volume as a proxy for liquidity, and thus may trigger large price movements where it is a poor proxy.[270] Some may be a result of non-manipulative trading strategies whereby HFTs chase short-term momentum in such a way as to amplify price swings.[271]

But the phenomenon of smoother trading in placid times and choppier trading in turbulent times suggests that the worst volatility spikes may be the result of HFTs having elbowed out tradi-

frequency traders and faster trading"); Zhang, *supra* note 222, at 8 ("Whether HFT increases or reduces stock price volatility is not obvious."). Several papers find that increased HFT activity reduces short-term volatility. *See* Joel Hasbrouck & Gideon Saar, *Low-Latency Trading* 32–33 (Cornell Univ., Johnson Sch. Research Paper Series No. 35-2010, 2013), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1695460; *see also* Brogaard, *supra* note 91, at 1 (finding that "HFTs . . . may dampen intraday volatility"); Sven S. Groth, *Does Algorithmic Trading Increase Volatility? Empirical Evidence from the Fully-Electronic Trading Platform Xetra* § 6.3 (Grothe Universität, Discussion Paper Nov. 16, 2011), *available at* http://www.futuresindustry.org/ptg/downloads/Working Paper_Algo_SvenGroth.pdf (finding evidence that algorithmic trading does not substantially increase volatility); Terrence Hendershott, et al., *Does Algorithmic Trading Improve Liquidity?* 66 J. FIN. 1, 10–11 (2011) (noting that when algorithmic trading increases, it narrows the spread and therefore decreases the volatility between the two prices); IOSCO REPORT, *supra* note 134, at 28 ("The available[] evidence is mixed and while some studies suggest that HFT tend[s] to have a stabilizing effect on market volatility, at least during normal market conditions, others provide negative evidence on the impact of HFT on market volatility."). *But see* Dichev et al., *supra* note 178, at 3 (finding that high trading volume can produce "its own volatility above and beyond that based on fundamentals"); Egginton et al., *supra* note 254, at 5; Zhang, *supra* note 222 at 2 ("[S]tock price volatility is positively correlated with HFT after controlling for the volatility of a firm's fundamentals and other exogenous volatility drivers.").

266. Sornette & Von der Becke, *supra* note 43, at 6.
267. *See supra* text accompanying notes 132, 148.
268. *See supra* note 126 and accompanying text.
269. *See infra* text accompanying note 271.
270. *See supra* Part III.D.
271. *See* Zhang, *supra* note 222 at 8.

tional market makers. As noted above, HFTs generally perform the market making function even more efficiently than their predecessors did, but their speed and lack of any obligation to remain in the market means that they can quickly vanish when market making becomes unappealingly risky, resulting in a dramatic drop in liquidity at just the wrong time. Sornette and Von der Becke, for example, note that "it seems HFT provides liquidity in good times when it is perhaps least needed and takes liquidity away when it is most needed, thereby contributing rather than mitigating instability . . . ."[272] The International Organization of Securities Commissions' ("IOSCO") report on the subject noted that "it is questioned by some market participants whether HFT firms provide liquidity to the market on a consistent basis, i.e. whether they continue to do so during turbulent conditions and whether they withdraw from the market."[273]

The harms tbat flow from increased volatility are multifaceted. Most basically, high-profile crashes and spikes may lead retail investors to view the markets as little more than a casino, and to withdraw their capital. Furthermore, investors who are risk-averse—which includes virtually everyone[274]—will tend to require a higher risk premium for more volatile stocks (in other words, investors will pay less for the same expected returns).[275] As a result, high volatility can increase firms' cost of capital,[276] and reduce the value of stock-based compensation to employees and officers.[277] It has also been suggested that increased volatility

272. Sornette & Von der Becke, *supra* note 43, at 6; Zhang, *supra* note 222, at 3 ("[T]he positive correlation between HFT and volatility is stronger when market uncertainty is high, a time when markets are especially vulnerable to aggressive HFT strategies and to the withdrawal of HFT market-making activities.").

273. IOSCO REPORT, *supra* note 134, at 26. As Sornette and Von der Becke point out, even market makers with an obligation to remain in the market only fulfilled these obligations in a technical sense during the Flash Crash, posting so-called "stub quotes" far from the market price, in the expectation that they would not be executed against. *See* Sornette & Von der Becke, *supra* note 43, at 5 n.5. These stub quotes were the source of some of the most outlandish trades during the Flash Crash (trades for one cent or $100,000 per share), so one may question whether they were an improvement over no quotes at all. *See* MAY CFTC-SEC STAFF REPORT, *supra* note 2, at 33–34.

274. *See* Prasanna Gai & Nicholas Vause, *Measuring Investors' Risk Appetite*, 2 INT'L J. CENT. BANKING 167, 168 (2006); Zhang, *supra* note 222, at 7.

275. *See* X. Frank Zhang, *Information Uncertainty and Stock Returns*, 61 J. FIN. 105, 135 (2006).

276. *See* Kenneth A. Froot et al., *Shareholder Trading Practices and Corporate Investment Horizons*, 5 J. APPLIED CORP. FIN. 42, 43 (1992).

277. *See id.*; Stanley Baiman & Robert Verrecchia, *Earnings and Price-Based Compen-*

leads to increased securities litigation, with all the attendant deadweight losses of such litigation.[278]

B. *The Regulatory Landscape*

Because HFT is a relatively new practice, it is unsurprising that the governing regulatory regimes are not fully developed. The general regulatory landscape has been sketched above. Before turning to my proposed regulatory response to HFT, however, I offer a brief overview of existing proposals. These proposals are ably summarized in the Joint CFTC-SEC Advisory Committee on Emerging Regulatory Issues' report, "Recommendations Regarding Regulatory Responses to the Market Events of May 6, 2010," and the IOSCO Technical Committee's July 2011 Consultation Report on "Regulatory Issues Raised by the Impact of Technological Changes on Market Integrity and Efficiency." As a result, these regulatory proposals are recapitulated only briefly here.

1. Recommendations of the CFTC-SEC Joint Committee

Following the Flash Crash, the CFTC and SEC convened a Joint Advisory Committee (the "Committee") to consider regulatory responses to the extraordinary events of that day.[279] The result was a series of fourteen recommended actions (some multipart), most of which implicate HFT even if they do not explicitly target it.[280] The report divides the fourteen recommended actions into three broad categories: (1) volatility-related actions; (2) re-

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sation Contracts in the Presence of Discretionary Trading and Incomplete Contracting, 20 J. ACCT. & ECON. 93, 94–95 (1995).

278. *See* Jennifer Francis et al., *Shareholder Litigation and Corporate Disclosures*, 32 J. OF ACCT. RES. 137, 144–46 (1994).

279. JOINT CFTC-SEC ADVISORY COMM. ON EMERGING REGULATORY ISSUES, RECOMMENDATIONS REGARDING REGULATORY RESPONSES TO THE MARKET EVENTS OF MAY 6, 2010, at 2 (2010) [hereinafter JOINT ADVISORY REPORT].

280. *Id.* at 3–14. As the Joint Committee noted in the introduction to its recommendations, "[t]he broad, visible, and often controversial, topic of High Frequency Trading . . . has been pervasive in our discussions and in comments received from others. Rather than detail specific recommendations about HFT in this report, steps to address issues associated with this practice are evident throughout our report." *Id.* at 2.

strictions on co-location and direct access; and (3) liquidity enhancement issues.[281]

Under the heading of "volatility," the report makes a number of recommendations, most of which have either been implemented or are scheduled to be implemented by the end of 2013.[282] First, the Committee endorsed the broader use of circuit breakers for individual stocks to temporarily halt trading when prices change by more than a certain amount (usually 10%) in a certain period (usually five minutes), and suggested consideration of similar circuit breakers for options and other derivatives.[283] Circuit breakers are intended to short-circuit liquidity freezes, giving time for liquidity to be attracted to the market, and giving algorithmic traders enough time to curb runaway algorithms.[284] Circuit breakers of one form or another were probably the single most called for response in the wake of the Flash Crash,[285] and the SEC and Financial Industry Regulatory Authority ("FINRA") acted quickly, beginning to implement them in S&P stocks in 2010, and expanding their use thereafter.[286] The Committee also recommended rules creating greater certainty as to when individual trades will be cancelled as erroneous in the case of aberrant price movements, and the elimination of stub quotes.[287]

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281. *Id* at 2–14.

282. *Id* at 2–6; *see, e.g.*, *Regulatory Newsletters; Current Regulatory Initiatives: Limit Up-Limit Down Proposals*, NASDAQ OMX, http://www.nasdaqtrader.com/trader.aspx?id=currentregulatory (last visited Dec. 6, 2013).

283. JOINT ADVISORY REPORT, *supra* note 279, at 3 & n.1, 5.

284. *See id.* at 3 n.1. ("Where there is extreme volatility in a stock, this solution provides for a pause in trading that will allow market participants to better evaluate the trading that has occurred, correct any erroneous 'fat finger' orders and to allow a more transparent, organized opportunity to offset the order imbalances that may have caused the volatility.").

285. *See* Gould, *supra* note 32, at 275 (noting that "[t]he SEC quickly implemented circuit breakers reminiscent of the 'Black Monday' market crash of 1987"); *SEC Approves New Stock-by-Stock Circuit Breaker Rules*, U.S. SEC. AND EXCH. COMM'N (June 10, 2010), *available at* http://www.sec.gov/news/press/2010/2010-98.htm (releasing rules "establishing a set of circuit breakers that uniformly pauses trading in a given security across all venues . . . ensur[ing] that all markets pause simultaneously and provide time for buyers and sellers to trade at rational prices").

286. JOINT ADVISORY REPORT, *supra* note 279, at 3 n.1. These single-stock circuit breakers are scheduled to be replaced by "limit-up/limit-down" rules in 2013. *See* Office of Investor Education & Advocacy, *SEC Investor Bulletin: New Measures to Address Market Volatility* (last updated Apr. 9, 2013) [hereinafter *SEC Investor Bulletin*], http://www.sec.gov/investor/alerts/circuitbreakersbulletin.htm).

287. JOINT ADVISORY REPORT, *supra* note 279, at 3–4. In November 2010, the SEC approved rules effectively barring stub quotes. *See* Order Granting Accelerated Exchange Act

Circuit breakers are somewhat blunt tools, in that a single erroneous trade can cause a complete halt in the trading of a security, at least for a few minutes. As such, the Committee recommended implementation of a so-called "limit up/limit down" process that, instead of halting trading of a security altogether, restricts trading to a price band within a certain percentage of the average price over the past few minutes.[288] Like a circuit breaker, a limit up/limit down rule arrests liquidity-driven spikes and crashes, but it does so without halting trading altogether—if liquidity returns within the price band, trading can resume as normal.[289] The SEC has approved a limit up/limit down mechanism, and it is in the process of being implemented, first for S&P 500 stocks and later for all securities.[290]

The last recommendation under the heading of "volatility" was that the SEC consider several alterations to the existing market-wide circuit breakers, under which trading is halted across the entire market if the market drops by a certain amount.[291] Most importantly, they suggested considering the amount of the decline necessary to trigger a halt, reducing the minimum duration of the halt, and using the S&P 500 index as the reference instead of the narrower DJIA.[292] The SEC has approved most of these changes, and they have begun to go into effect.[293]

The second group of recommendations deals with co-location and direct access to exchange infrastructure, and seeks to control the risks associated with manipulative or poorly designed algo-

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Release No. 34,63255 Approval to Proposed Rule Changes to Enhance the Quotation Standards for Market Makers, 75 Fed. Reg. 69,481, 69,484 (Nov. 5, 2010).

288. *See* JOINT ADVISORY REPORT, *supra* note 279, at 4–5 (internal quotation marks omitted).

289. *See id.*, at 4.

290. *SEC Investor Bulletin*, *supra* note 286.

291. JOINT ADVISORY REPORT, *supra* note 279, at 5–7.

292. *See id.* at 6.

293. *See SEC Investor Bulletin*, *supra* note 286. Among other things, the scheduled changes include: 1) switching from the Dow Jones Industrial Average to the S&P 500; 2) reducing the "trigger points" from 10%, 20%, and 30% declines to 7%, 13%, and 20% declines; and 3) reducing the lengths of the halt for various declines, with a minimum halt of only 15 minutes. *See* Order Granting Accelerated Approval to Proposed Rule Changes Relating to Trading Halts Due to Extraordinary Market Volatility, Exchange Act Release No. 34,67090, 77 Fed. Reg. 33,531, 33,532 (June 6, 2012); *see also* Ian Poirier, Note, *High-Frequency Trading and the Flash Crash: Structural Weaknesses in the Securities Markets and Proposed Regulatory Responses*, 8 HASTINGS BUS. L.J. 445, 460 (2012) (defining stub quoters as "bids or offers that are far removed from the best price available for a given security").

rithms.[294] In particular, the Committee suggested that the SEC work with FINRA and the various exchanges to design and implement risk management controls, ensure that parties with access to the market are in compliance with regulatory requirements, and put in place testing and screening measures to prevent erroneous or manipulative trades.[295] In November 2010, the SEC unanimously approved a rule banning so-called "naked access" to exchanges, requiring any trader with direct access to the exchange—or anyone "sponsoring" a trader by providing them access[296]—to implement pre-trade risk controls to minimize the risk of erroneous or overly risky trading.[297]

The Committee further endorsed the CFTC's moves to make similar efforts to prevent "disruptive trading activities," including potentially screening algorithms used by traders for how they might affect liquidity and volatility, prior to their use in the market.[298] The Committee "applaud[ed]" the CFTC's request for comment on "whether it is appropriate to restrict large order execution design that results in disruptive trading," including whether to prohibit "large order algorithms that employ unlimited use of market orders or that permit executions at prices which are a dramatic percentage below the present market price without a pause for human review" (like the one the CFTC-SEC Report argued triggered the Flash Crash).[299]

294. JOINT ADVISORY REPORT, *supra* note 279, at 7.

295. *See id.*

296. Broker-dealers who are members of an exchange typically have two ways of providing trading services to their customers, including HFTs. First, they could provide so-called direct market access ("DMA") by allowing the customer to place orders through the broker-dealer's trading systems. When, however, customers—like HFTs—have a speed-dependent trading strategy, such a relay system can cause problematic delays. As a result, some broker-dealers provided so-called "sponsored access," allowing the customer to access the exchange directly. When there are no pre-trade filters or controls in place, such access is sometimes known as "naked" access. The danger is that the "sponsored" customer may not comply with appropriate risk limits or other regulations, resulting in a greater potential that an erroneous or ill-conceived series of trades could result in the sponsoring broker-dealer defaulting on its trading obligations. Yoon, *supra* note 100, at 928–29.

297. Risk Management Controls for Brokers or Dealers with Market Access, 75 Fed. Reg. 69,792, 69,792, 69,825–26 (Nov. 15, 2010) (codified at 17 C.F.R. pt. 240); *SEC Adopts New Rule Preventing Unfiltered Market Access*, U.S. SEC. AND EXCH. COMM'N (Nov. 3, 2010), http://www.sec.gov/news/press/2010/2010-210.htm.

298. JOINT ADVISORY REPORT, *supra* note 279, at 7–8.

299. *Id.* at 8–9.

The third group of recommendations concerns measures designed to improve the quality of liquidity.[300] The first recommendation is that the SEC work with exchanges to develop a system of liquidity rebates and charges that provides stronger incentives to provide liquidity during turbulent times.[301] Particular emphasis is placed on "peak load" pricing that would offer higher rebates for liquidity providers (and/or higher access fees for liquidity takers) when liquidity is low.[302] In addition, the Committee—while admitting that it "does not believe it is competent" to determine how best to do so—recommends that the SEC seek ways to urge (or force) traders who engage in market making to maintain quotations that are "reasonably related to the market" (in other words, not so-called "stub quotes" at $0.01 or $100,000) in bad times as well as good.[303] Similarly, the Committee suggests that the SEC consider ways to prevent broker-dealers who typically internalize a large proportion of trades from withdrawing liquidity during volatile markets.[304] Suggested methods include a requirement that internalized trades be "executed at a price materially superior" to the best available bid or offer in the market, or a requirement that "some material portion" of orders be executed under volatile conditions.[305]

The Committee also takes note of the "disproportionate impact that HFT has on Exchange message traffic and market surveillance costs," particularly from the huge numbers of orders placed and subsequently cancelled.[306] In response, the Committee recommends that regulators look for ways to pass these costs back to the HFTs responsible for creating them, "perhaps requiring a uniform fee across all Exchange markets that is assessed based on the average of order cancellations to actual transactions effected by a market participant."[307] The rule is intended to make certain "that if a broker-dealer is going to loan his keys [to HFTs], he not only must remain in the car, but he must also see to it that the

300. *Id.* at 8.
301. *Id.* at 9–10.
302. *Id.* at 9 (internal quotation marks omitted).
303. *Id.* at 10–11 (internal quotation marks omitted).
304. *Id.* at 12.
305. *See id.* at 12.
306. *Id.* at 11.
307. *Id.*

person driving observes the rules before the car is ever put into drive."[308]

Finally, the Committee makes a series of recommendations regarding the gathering and dissemination of trading information by exchanges. One suggestion is to provide incentives for traders to post resting limit orders by instituting a "trade at" rule that requires exchanges to route orders to the best displayed price, rather than being able to simply match the best price without ever publicly displaying an order.[309] Such a rule would essentially end the use of flash orders as currently practiced, as they involve offering an exchange's customers the opportunity to fill an order by matching the best price without ever placing a publicly visible order.[310] Another suggestion is to include some or all limit order book information in the consolidated quotation data, rather than just the best bids and offers.[311] Still another is to make available real-time statistics on liquidity and buy or sell order imbalances, to better allow market participants to profit by supplying liquidity when it is needed.[312] Finally, pointing to the enormous time and resources regulators were forced to expend to perform a forensic reconstruction of even a few minutes of trading activity during the Flash Crash, the Committee recommends that the SEC and CFTC "proceed with a sense of urgency" to create a "consolidated audit trail for the US equity markets," so that orders and executions can be more easily reconstructed and examined by regulators.[313] Development of such a system is underway.[314]

308. Scott Patterson, *SEC Aims to Ban 'Naked Access'—Critics See Liquidity Hit, but Agency Cites Market Stability in Pushing Move*, WALL ST. J., Jan. 14, 2010, at C1 (internal quotation marks omitted).

309. JOINT ADVISORY REPORT, *supra* note 279, at 13.

310. *Id.* at 12–13. In theory, flash orders would still be possible, so long as the customer filling the order was willing to provide a slight improvement over the best price available in the market. *Id.*

311. *Id.* at 13.

312. *Id.* at 13–14.

313. *Id.* at 14.

314. In 2010, the SEC proposed that market operators be required to establish and maintain a consolidated audit trail allowing regulators to trace orders and executions across securities markets. *See* Consolidated Audit Trail, Exchange Act Release No. 34-62,174, 75 Red. Reg. 32,556 (June 8, 2010). A Final Rule was approved in July of 2012, with implementation to take place in stages over the next two years. *See* Consolidated Audit Trail, Exchange Act Release No. 34-67,457, 77 Fed. Reg. 45,722, 45,809 (Aug. 1, 2012).

2. IOSCO Recommendations

Most of the recommendations in IOSCO's 2011 report overlap with those introduced in the previous section. Nonetheless, a few additional proposals—regulatory possibilities, really—bear special mention. In its report, IOSCO breaks the "suggestions" into three categories, based on the market level at which the proposed regulation would operate: (1) at the trading firm level; (2) at the market operator level; and (3) at the structural level.[315]

At the trading firm level, IOSCO's report makes the following suggestions for measures that should be given fuller consideration by regulators: (1) "stress testing" and approval requirements for new HFT and other algorithms; (2) taxes or fees for unusually high order placement or cancellation volumes; (3) SEC/CFTC registration requirements for exchange members; and (4) a ban on direct market access for traders unless their trading is subjected to "appropriate pre-trade controls."[316]

At the market operator level, in addition to echoing the CFTC/SEC Joint Committee recommendations with regard to circuit breakers and erroneous trade cancellation procedures, IOSCO suggests the following possible actions: (1) requiring stress testing for market infrastructure operators; (2) requiring market operators to provide "appropriate testing environments" for HFTs and other algorithmic traders to test their algorithms; and (3) introducing larger minimum price changes and/or a minimum time orders must remain on the books before being cancelled.[317]

At the structural level, IOSCO calls for consideration of a ban on flash orders, and of whether layering the book should be considered a form of market manipulation.[318]

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315. IOSCO REPORT, *supra* note 134, at 38–40.

316. *See id.* at 38.

317. *Id.* at 39. IOSCO also echoes several other recommendations made by the Joint Committee, in particular: (1) imposing market making responsibilities on HFTs engaged in market making; (2) banning stub quotes; and (3) assessing fees or taxes on high order entry and cancellation rates. *Id.*

318. *Id.* at 39–40. IOSCO also follows the Joint Committee in calling for creation of a consolidated audit trail, "able to track orders, quotes and trades in the market," including a system of entity identifiers able to quickly and reliably identify the party responsible for order and trade activity. *Id.* at 40.

3. The Possibility of Outright Bans

One particularly straightforward regulatory possibility that has not been emphasized by any of the responsible authorities in the United States—but that has been bruited about by market observers and participants—is simply banning HFT.[319] It may seem that trying to ban HFT would pose insuperable problems of definition, as banning all forms of algorithmic trading is not likely to be desirable. But in practice, it would likely be a relatively simple matter of imposing a small tax or fee on financial transactions—large enough to render HFT strategies unprofitable, but small enough to not substantially increase the cost of trading for traditional market participants. The EU is in the process of implementing just such a tax.[320] Less drastically, but in a similar vein, some industry participants have called for bans on co-location and direct data feed access on fairness grounds.[321] Finally, the SEC has repeatedly called for comment on wbether steps should be taken to ban "order anticipation" strategies, though it has yet to make a firm proposal on the matter.[322]

319. Katherine Heires, *High Frequency Trading: A New Study Finds a Divide on the Impact*, SEC. TECH. MONITOR, http://www.securitiestechnologymonitor.com/news/-24116-1.html (last visited Dec. 6, 2013).

320. The European Commission has proposed a financial transaction tax along these lines, proposed to take effect in 2014. *See* Press Release, European Comm'n, Financial Transaction Tax under Enhanced Cooperation: Commission Sets Out the Details (Feb. 14, 2013), *available at* http://europa.eu/rapid/press-release_IP-13-115_en.htm; *see also* Zhang, *supra* note 222, at 35 n.23 ("From a policy perspective, reining in the scope of HFT would be fairly easy if HFT were found to be harmful to the capital market. A small tax on financial transactions would dramatically reduce the volume of high-frequency trading."). Zhang reports a "top hedge fund" telling bim that its strategy involved earning five basis points (0.05%) per trade, with an average transaction cost of three basis points (0.03%). Zhang, *supra* note 222, at 35 n.23. If accurate, a tax of just 0.03% would be enough to render this hedge fund's HFT unprofitable, while still constituting only a small fraction of the cost of trading for traditional investors.

321. Letter from Edward E. Kaufman, United States Senator, to Mary L. Schapiro, U.S. Sec. & Exch. Comm'n (Nov. 20, 2009), *available at* http://green.lib.udel.edu/webarchives/kaufman.senate.gov/imo/media/doc/Schapiro Mary 11 20 094.pdf.

322. *See, e.g.*, SEC Concept Release, *supra* note 30, at 3609; Press Release, Futures Indus. Ass'n, SEC Roundtable Reveals Sharp Differences of Opinion on High-Frequency Trading (June 2, 2010), *available at* http://www.futuresindustry.org/ptg/sec-roundtable-reveals-sharp-differences-of-opinion-on-highfrequency-trading.asp.

V. CHOOSING A REGULATORY STRATEGY FOR HIGH-FREQUENCY TRADING

How, then, should policymakers respond to the risks associated with HFT? Helpfully, in Section 11A of the Exchange Act, Congress set forth a set of five "objectives" to guide the SEC in constituting a national market system.[323] In particular, Congress instructed the SEC to pursue the following objectives:

> (i) economically efficient execution of securities transactions; (ii) fair competition among brokers and dealers, among exchange markets, and between exchange markets and markets other than exchange markets; (iii) the availability to brokers, dealers, and investors of information with respect to quotations for and transactions in securities; (iv) the practicability of brokers executing investors' orders in the best market; and (v) an opportunity, consistent with [efficiency and best execution], for investors' orders to be executed without the participation of a dealer.[324]

To these objectives, we can add some more general guidelines. In a recent paper, Professors Merrill and Schizer offer—in the context of hydraulic fracturing in oil and gas drilling—a helpful template for choosing a regulatory strategy.[325] Following their basic roadmap, I will begin with a brief reminder of the dangers of over-regulation. I will then survey four alternative regulatory strategies identified by Merrill and Schizer: (1) prohibitions; (2) command and control regulations; (3) liability rules; and (4) what they refer to as "Coasean bargains," which I will consider more broadly as private ordering.[326] Next, I will introduce four factors they identify as bearing on the proper choice of regulatory strategy: (1) the feasibility of one-size-fits-all solutions; (2) the seriousness of the potential harm; (3) the administrative costs associated with ex post liability determinations; and (4) the novelty of the technology involved.[327] Finally, I will apply these factors to HFT, and set forth a summary of my proposed regulatory strategy.

323. *See* 15 U.S.C. § 78k-1(a)(1)(C) (2012).

324. *Id.*

325. *See generally* Merrill & Schizer, *supra* note 36, at 211–16.

326. *Id.* Merrill and Schizer also discuss disclosure as a potential regulatory strategy—for example, requiring oil drillers to disclose the risks associated with fracking to surrounding landowners. *Id.* at 208. Such a strategy has no obvious analog—at least not a *useful* analog—and is thus not considered here.

327. *See id.* at 216–17, 218 n.345, 219–22.

A. *Over-Regulation*

While HFT does not inspire the kind of dread and hysteria that often accompany environmental or terrorist risks, there is nonetheless some reason to be concerned about the risk of regulatory overkill. In particular, HFTs are new and relatively small fish in a large, shark-infested pond. Politically influential and well-financed legacy market actors—including investment banks, hedge funds, mutual funds, market makers, and other institutional investors—could potentially seek to stifle competition from HFTs by calling for debilitating regulation. Thus it is important to approach calls for additional regulation of HFT by other financial industry players with an appropriate level of skepticism.

B. *Possible Regulatory Strategies*

1. Prohibitions

As noted above, one obvious strategy for dealing with the risks of HFT is simply to ban it, as the EU is in the process of doing.[328] As Merrill and Schizer point out, "[p]rohibition is obviously the most protective regulatory strategy."[329] Prohibition can be an appropriate strategy when the risks of the activity in question outweigh the benefits, together with the enforcement costs associated with prohibition. Prohibition, where it is completely effective, reduces both the costs and the benefits of the banned activity to zero.

Prohibition has several well-known downsides as a regulatory strategy. First, where the benefits of the prohibited activity are significant, and the risks are either small or can be managed in a less drastic fashion, prohibition constitutes over-regulation.[330] By ending the activity altogether, prohibition also cuts off the possibility of innovations that would reduce risk while preserving benefits.[331] Finally, enforcement costs may be high where detection is

328. *See supra* Part IV.B.3.
329. Merrill & Schizer, *supra* note 36, at 206.
330. *Id.*
331. *See id.*

difficult and where the prohibited activity closely resembles legitimate activities.[332]

2. Command and Control Regulation

A less drastic alternative to prohibiting an activity is to regulate it. Command and control regulations refer to requirements imposed by a regulator that are mandatory for the regulated entity.[333] Such regulations often come in the form of standards, such as a maximum level of arsenic in drinking water,[334] or a maximum number of insect parts in 100 grams of peanut butter.[335] Perhaps the most common form of command and control regulation, however, is some form of "best practices" regulation, requiring regulated entities to follow basic prescriptions that are found to constitute the state of the art in the industry.[336] The basic judgment involved in such regulation is that if some firms are able to operate profitably with certain safeguards in place, it should not be overly burdensome to require those safeguards of the entire industry.[337]

The advantage of command and control regulation is that it can potentially achieve substantial reductions in risk without depriving society of all of the benefits of the regulated activity.[338] At the same time, command and control is likely more reassuring to the public than less direct forms of regulation.[339] With such regulation, the public can see what protections are in place in a way that is not generally the case with incentive-based regulation like excise taxes or ex post fines and liability.[340] Furthermore, best practices regulation tends to be fairly stable and predictable, and

332. *See id.* at 205.

333. *See id.* at 206; *cf.* MARK THORNTON, THE ECONOMICS OF PROHIBITION 76 (1891).

334. *See* National Primary Drinking Water Regulations, 66 Fed. Reg. 6976, 6981 (Jan. 22, 2001) (codified at 40 C.F.R. pt. 9, 1541, 142 (2012)).

335. FOOD & DRUG ADMIN., DEFECT LEVELS HANDBOOK 18 (2013), *available at* http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/SanitationTransportation/ucm056174.htm.

336. Merrill & Schizer, *supra* note 36, at 206 (internal quotation marks omitted). Merrill and Schizer give as examples "rules requiring ships to carry lifeboats [and] cars to have seat belts." *Id.*

337. *Id.*

338. *See id.*

339. *See id.* at 206–07.

340. *See id.* at 207.

is for that reason often popular with regulated industries, which often favor predictability over perfect efficiency.[341]

One disadvantage of command and control regulation is that it is obviously less protective than outright prohibition.[342] Another is that it can result in either over- or under-regulation of the activity, depending as it does on the state of the art in the industry, rather than any explicit cost-benefit analysis.[343] Still another is that best practices regulation can serve to freeze innovation.[344] As long as regulated entities comply with existing best practices, they will escape liability, and thus have little incentive to invest resources in reducing risk further.[345]

3. Liability Rules

Regulation can also be ex post, rather than ex ante, imposing penalties on entities that impose harms on others. Perhaps the best-known system of retrospective liability is tort law. In a typical tort action, a party that has been harmed by the actions (usually the *wrongful* actions) of another party may sue, establish certain elements including injury and causation, and recover monetary compensation for the harm done. In general, however, "liability rules operate after the fact to levy a financial charge on externality-generating activity."[346]

Liability rules offer some significant advantages over ex ante regulation. First, in contrast to the potentially ossified nature of command and control regulation, liability provides an incentive to the regulated firms to look for all cost-justified ways to reduce negative externalities.[347] This advantage is potentially substantial where the state of the art is still developing, and it is uncertain what constitutes best practices. Furthermore, liability rules often offer compensation directly to the injured parties.[348] Command

341. *Id.*
342. *See id.*
343. *Id.*
344. *Id.*
345. *See* Charles R. Korsmo, *Lost in Translation: Law, Economics, and Subjective Standards of Care in Negligence Law*, 118 PENN. ST. L. REV. (forthcoming 2014).
346. Merrill & Schizer, *supra* note 36, at 209.
347. *Id.* at 209–10 (noting that "[l]iability . . . is especially effective in encouraging risk-reducing innovation").
348. *Id.* at 209.

and control, standing alone, may work to prevent harms, but does nothing to ameliorate harms that have actually occurred.

Along with these advantages come potentially serious disadvantages. Liability can generate substantial uncertainty for the regulated industry, which cannot be certain either of the standards it will be held to nor the magnitude of the damages until after the fact.[349] In addition, the public may find the ability to be compensated after the fact less reassuring than knowing that appropriate regulatory safeguards are in place ahead of time.[350] If, as is the case in most tort actions, private litigants must come forward, individuals suffering small harms may have insufficient incentive to bring suit, thus resulting in under-deterrence. This phenomenon is most acute where harms are diffuse—small for any individual, but affecting many people and thus large in the aggregate.[351] Finally, difficulty in establishing causation may make ex post liability assignments impractical.

4. Private Ordering

A final strategy is to allow externalities to be regulated by private ordering, contractual or otherwise.[352] Formal contractual solutions will not be possible where transaction costs are high or property rights are unclear.[353] Where HFT injures parties who lack relevant legal rights, Coasean bargaining will not be possible.[354] Nonetheless, such bargaining may be feasible for some risks associated with HFT. More broadly, often parties will be able to protect themselves against externalities at lower cost than an effective regulatory system would impose. Sometimes, to take an everyday example, an eyesore is better addressed by a fence

349. *See id.*

350. *See, e.g.*, STEPHEN D. SUGARMAN, DOING AWAY WITH PERSONAL INJURY LAW: NEW COMPENSATION MECHANISMS FOR VICTIMS, CONSUMERS, AND BUSINESS 6–7 (1989).

351. This difficulty is somewhat ameliorated by the availability of class actions, though aggregate litigation tends to be beset by a host of agency problems. *See, e.g.*, Samuel Issacharoff, *The Governance Problem in Aggregate Litigation*, 81 FORDHAM L. REV. 3165, 3167 (2013) (discussing alternate efforts to structure class actions in light of agency problems).

352. The notion that, in the absence of transaction costs, private parties would be able to solve externality problems by contract is generally associated with the work of Ronald Coase. *See, e.g.*, Ronald H. Coase, *The Problem of Social Cost*, 3 J. L. & ECON. 1 (1960).

353. *Id.* at 16–17.

354. *See id.* at 9–10 (noting that when a party has no relevant legal right, that party has no bargaining power).

than by instituting an architectural review board with plenary powers.

C. *Factors Influencing the Choice of Regulatory Strategy*

Each of the above regulatory techniques entails competing considerations. These considerations should inform our choice of regulatory strategy—or combination of regulatory strategies. The literature on selection of a regulatory strategy is not as developed as one might expect.[355] Some ideas may be gleaned, however, from writings on the respective merit of ex ante regulations that seek to prevent harms before they occur, and ex post regulations that seek to sanction conduct that has already led to some harm and thereby also provide incentives to avoid harmful externalities in the first place.[356] Most of this literature focuses on the respective costs of determining optimal behavior, either before some harmful accident has occurred, or after the fact.[357] Merrill and Schizer helpfully distill the literature into four considerations that may help choose among regulatory strategies.[358]

The first factor is heterogeneity—how much variation is there among harm-producing scenarios?[359] Where accident scenarios recur repeatedly, or fall into predictable templates, ex ante regulation may be cost effective. Where each accident is sui generis, determining optimal behavior before the fact may be difficult, which tends to favor ex post judgment.[360] With HFT, the risks are likely to be relatively heterogeneous. Every algorithm is unique. While

355. *See generally* REGULATION VERSUS LITIGATION: PERSPECTIVES FROM ECONOMICS & LAW (Daniel P. Kessler ed. 2011) (exploring trade-offs between two approaches to market failure: developing administrative rules to ensure private party compliance and allowing the courts to enforce standards set by private parties); Steven Shavell, *Liability for Harm versus Regulation of Safety*, 13 J. LEGAL STUD. 357 (1984) (comparing liability in tort with the regulation of safety in controlling activities that create risk of harm to others).

356. *See* Merrill & Schizer, *supra* note 36, at 211–16; Samuel Issacharoff, *Regulating After the Fact*, 56 DEPAUL L. REV. 375, 377–78 (2007); Robert Innes, *Enforcement Costs, Optimal Sanctions, and the Choice Between Ex-Post Liability and Ex-Ante Regulation*, 24 INT'L REV. L. & ECON. 29, 35 (2004); Donald Wittman, *Prior Regulation versus Post Liability: The Choice Between Input and Output Monitoring*, 6 J. LEGAL STUD. 193, 195–201 (1977).

357. As a simple example, consider the costs of determining a reasonable speed limit for each stretch of road versus the costs of asking a jury to determine whether the defendant was going too fast after an accident has occurred.

358. Merrill & Schizer, *supra* note 36, at 213–16.

359. *Id.* at 213.

360. *See id.* at 212–14.

the dangers involved can be categorized to some extent, the best preventive measures will depend sensitively on changing market conditions.[361] While best practices may be developed to minimize certain risks, it is likely some form of ex post regulation will also be needed, at least in the near term.

The second factor is the expected frequency and severity of the anticipated harm.[362] Frequent harms like car accidents and catastrophic harms like nuclear meltdowns may justify an up-front expenditure in determining optimal behavior ex ante.[363] For rare or less severe harms, it may be more expedient to wait for an accident to occur, and then assign responsibility.[364] With HFT, of course, life and limb are not at risk. In addition, most of the harms surveyed above are relatively small for any given victim. For these harms, ex ante regulation may not be worth the cost. An extreme volatility event, however, is a possible exception. Dramatic events like the Flash Crash can impose very large costs on society, and ex ante regulation may be justified to prevent their occurrence.

A third factor is the "settlement costs" associated with making ex post judgments.[365] Where responsibility for a harm is diffuse, or victims are numerous and difficult to identify, ex post liability may not be feasible as a mode of regulation.[366] Merrill and Schizer give the example of air pollution caused by automobiles.[367] Millions of drivers contribute to the harm, and millions of individuals are harmed, making assignment of liability virtually impossible.[368] As a result, ex ante rules designed to reduce exhaust pollution may be the only realistic regulatory possibility.[369] With HFT, the possible harms vary in their likely settlement costs. Front-running, for example, will usually have an identifiable victim and an identifiable perpetrator, and pose few problems for regulation by ex post liability. At the other end of the spectrum, major volatility spikes are likely to involve contributions from a multitude of

361. *See id.* at 213.
362. *Id.* at 213–14.
363. *Id.* at 214.
364. *Id.*
365. *Id.* (internal quotation marks omitted).
366. *Id.* at 214–15.
367. *Id.* at 215.
368. *Id.*
369. *Id.*

market actors, and affect millions of investors, making a system of ex post liability problematic. Phenomena like market manipulation, flash orders, and quote-stuffing fall somewhere in between, in that those harmed may be widely dispersed. It is important to note, however, that ex post liability can consist of fines levied by regulators and exchange operators, instead of or in addition to traditional tort-like liability.[370]

Finally, the novelty of the technology involved and the attendant risks may be an important factor.[371] With novel technology and circumstances, the harms involved and the best methods for avoiding them are unlikely to be fully understood with any great confidence.[372] Without significant experience, it may not be possible to develop efficient and effective ex ante regulations.[373] Here, the novelty of HFT and the uncertainty surrounding its risks argues strongly for some form of ex post liability, and for caution in undertaking comprehensive ex ante regulation.

To these factors, we can add the set of five "objectives" set forth by Congress in Section 11A of the Exchange Act to guide the SEC in constituting a national market system.[374] The following principles build off of those objectives and are intended to provide a starting point; a relatively uncontroversial set of propositions from which initial impressions can be drawn.

First, to the extent possible, the positive effects of HFT on efficient execution should not be destroyed. As detailed previously, at least under ordinary circumstances, HFT has led to dramatically improved speed of execution and far narrower spreads than prevailed even ten years ago.[375] Long-term investors benefit from a lower cost of trading as a result.[376] Thus, all else being equal, an option that preserves these benefits is preferable to one that destroys them.

370. *Id.* at 209.

371. *Id.* at 215.

372. *Id.*

373. *Id.* ("Without experience, we generally will be better off with some form of *ex post* regulation . . . . "The general lesson is that we need significant exposure to a novel technology before developing efficient *ex ante* regulations.")

374. *See supra* note 324 and accompanying text.

375. *See supra* text accompanying notes 134.

376. *See supra* notes 142 and accompanying text.

Second, competition—between traders and between trading venues—should typically be encouraged, rather than curtailed. Unfair or inefficient practices can endure only when customers are either ignorant or powerless to go elsewhere. Where true competition exists between trading venues, venues that enable or allow unfair, abusive, or destructive trading practices will be punished by the marketplace, as investors (and listers) take their business elsewhere.[377] Those that find innovative ways to reduce the risks associated with HFT will be rewarded and increase their market share. Thus, while harmonization of rules across trading venues may sometimes be necessary or desirable, it should not be allowed to smother the innovative power of competition, and should not be pursued for its own sake when it undercuts the ability of exchanges to compete on quality.

Third, in keeping with Congress's desire for quotation and transaction information to be widely available to market participants, transparency should be encouraged. As IOSCO has stated, "[m]arket transparency . . . is generally regarded as central to both the fairness and efficiency of a market, and in particular to its liquidity and quality of price formation."[378] Transparency as to procedures and structures is essential to competition among trading venues. Transparency as to quotations and orders—and as to real-time liquidity in general—is just as essential if competition among traders is to be effective in reducing volatility and improving price discovery. The more easily market participants can determine when and where liquidity is most needed, the more effectively they can compete to provide it.

Finally, where possible, arrangements that provide market actors incentives to avoid or rectify problems should be preferred to attempts to impose solutions from without. In recommending the SEC work with exchanges to encourage market makers to remain in the market during periods of extreme volatility, the Joint CFTC-SEC Committee candidly and admirably confessed that it "does not believe it is competent" to determine how best to do

377. Already, responding to market demand, trading venues are beginning to materialize that aim to exclude HFTs. *See* Philip Stafford, *New Platform Aims to Limit 'Flash' Orders*, FIN. TIMES (May 30, 2012), *available at* http://www.ft.com/intl/cms/s/0/3f8cf658-aa43-11e1-8b9d-00144feabdc0.html#axzz2g6kvmyjg (describing the planned creation of a new HFT-free trading venue, "respond[ing] to a market desire to do this").

378. IOSCO REPORT, *supra* note 134, at 3.

so.[379] This is undoubtedly true far more often than it is admitted. As a result, especially when dealing with sophisticated market participants, we might tend to be chary about measures that protect actors from the consequences of failing to protect themselves.

D. *A Regulatory Strategy for High-Frequency Trading*

With these principles in mind, we can now sketch an initial regulatory strategy. In brief, I would utilize at least some degree of best practices regulation, backstopped by liability to encourage risk-reducing innovation. In order to make ex post liability feasible, a consolidated audit trail should be developed, such that regulators and litigants can accurately and efficiently investigate incidents and assign responsibility. Finally, the risk of catastrophic volatility events like the Flash Crash should be controlled by an improved system of circuit breakers.

Utilizing at least some best practices regulation offers several advantages here. First, it can be used to control familiar risks and types of malfeasance, and regulate the most blatant forms of unfairness.[380] Second, it can provide some regulatory certainty for market participants, allowing them the predictability they need in order to invest in the necessary technology and human capital.[381] Perhaps most importantly, the existence of at least some body of public ex ante regulating would help to assure the public that regulators are aware of and seeking to control the risks of HFT.[382] This serves two purposes. First, it minimizes the risk of investors pulling their resources out of the markets and putting them to less productive use, in the belief that markets are unsafe or unfair. Second, it reduces the risk that opponents of HFT—many of whom have vested interests that are threatened by HFTs—will be able to use such fears to build support for a ban on HFT, which would destroy all of the benefits of the practice.

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379. JOINT ADVISORY REPORT, *supra* note 279, at 10–11.

380. *See* Merrill & Schizer, *supra* note 36, at 150.

381. *See* Randall Billingsley, *Arbitrage, Hedging, and the Law of One Price*, FIN. TIMES (Nov. 4, 2005), *available at* http://www.ftpress.com/articles/article.aspx?p=417513 (explaining that "[t]he act of arbitraging mispriced assets should return prices to their appropriate values").

382. *Cf.* Ashutosh Bhagwat, *Modes of Regulatory Enforcement and the Problem of Administrative Discretion*, 50 HASTINGS L.J. 1275, 1312 (1999) (describing how ex ante regulating assures firms of regulator's intentions so that firms can clarify their positions).

Importantly, however, best practices regulation need not come entirely—or even primarily—from government regulators. The structure of the modern markets gives exchange operators and other so-called self-regulatory organizations the ability and incentive to enact many protective reforms themselves.[383] Such private ordering itself represents an appropriate regulatory strategy.

Best practices regulation has some drawbacks that prevent it from being fully effective in this context. First, such regulations can only be effective where regulators are able to enforce them.[384] Given the difficulties of effectively monitoring the markets, and the highly technical nature of the issues involved, enforcement is especially unlikely to be optimal. Second, HFT is a fast-changing field with a high degree of heterogeneity and novelty.[385] Best practices will undoubtedly develop over time, allowing ex post regulation to gradually be replaced by best practices regulation,[386] but the body of ex ante regulations must necessarily remain incomplete for the foreseeable future. Third, as noted above, best practices regulation may offer insufficient incentives for risk-minimizing innovations.[387]

383. Anthony Malakian, *The Industry Needs to Come Together on Policing Itself When it Comes to HFT*, WATERS TECH. (Oct. 18, 2012), http://www.waterstechnology.com/buy-side-technology/opinion/2218386/the-industry-needs-to-come-together-on-policing-itself-when-it-comes-to-hft; World Federation of Exchanges, *Understanding High Frequency Trading*, FOCUS (May 2013), http://www.world-exchanges.org/focus/2013-05/m-2-1.php; Zachary J. Ziliak, *Regulation Ahead: Advice and Options for Automated and High-Frequency Traders*, BLOOMBERG L., http://about.bloomberglaw.com/practitioner-contributions/regulation-ahead-advice-and-options-for-automated-and-high-frequency-traders/ (last visited Dec. 6, 2013); *The Laws That Govern the Securities Industry*, U.S. SEC. & EXCH. COMM'N, http://www.sec.gov/about/laws.shtml (last visited Dec. 6, 2013)

384. *Cf.* Vince Heaney, *High Frequency Traders' Claims Refuted by Studies*, FIN. TIMES (Sept. 30, 2012), http://www.ft.com/cms/s/0/2b1723c4-0704-11e2-92b5-00144feabdc0.html#ixzz2jEbSctKj (discussing a Federal Reserve Bank of Chicago study's finding that "many high frequency trading firms fail to implement all the industry's best practice recommendations or rely on other companies in the trade process to catch an out-of-control algorithm or erroneous trade"); Jeff Carter, *Is High Frequency Trading Good? Or Bad?*, TOWNHALL FIN. (June 28, 2012), http://finance.townhall.com/columnists/jeffcarter/2012/06/28/is_high_frequency_trading_good_or_bad/page/full (lamenting the failure of "ethical HFT traders" to "self police[e] their own people").

385. *High Frequency Trading in FX: Open for Business*, AITE GROUP (Apr. 26, 2010), http://www.aitegroup.com/report/high-frequency-trading-fx-open-business.

386. Pierre Schlag, *Rules and Standards*, 33 UCLA L. REV. 379, 379–89 (1985) (pointing out the differences between a rule, such as Holmes' "stop and look" requirement at a railroad crossing, and a standard, such as Cardozo's "reasonable caution" requirement, and noting the development in new areas of law from rules to standards.).

387. Merrill & Schizer, *supra* note 36, at 263.

Liability rules help to address each of these drawbacks. Most important in this regard is to ensure that HFTs and those who sponsor their access to their markets are capable of making good on the obligations they incur from their trading activities. Few things are more destructive to the functioning of public securities markets than the introduction of significant counter-party risk.[388] HFTs and their facilitators must be required to demonstrate that they have the financial wherewithal to make good on any obligations that their algorithms—even unintentionally—cause them to incur.

Most importantly with respect to truly novel and catastrophic volatility risk, these regulatory measures should be backstopped by improved circuit breakers designed to temporarily halt trading in individual securities during periods of unusual volatility. Improved circuit breakers are already in the process of being implemented for most securities, and should help to limit the most troubling risk posed by HFT.[389]

VI. DESIGNING A REGULATORY REGIME FOR HIGH-FREQUENCY TRADING

In this part, I offer more detail about the proposed regulatory regime, together with consideration of the optimal institutional actors for implementing it.

A. *Consolidated Audit Trail*

The first step towards effective regulation of HFT is to implement a consolidated audit trail. At present, while trades that are actually executed are reported to the consolidated market data system, there is no single database providing comprehensive records of all order activity, including orders that are cancelled without being executed.[390] Each exchange instead uses its own

388. *See, e.g.*, Iman Anabtawi & Steven L. Schwarcz, *Regulating Systemic Risk: Towards an Analytical Framework*, 86 NOTRE DAME L. REV. 1349, 1394 (2011).

389. *See supra* note 286.

390. Press Release, SEC, SEC Approves New Rule Requiring Consolidated Audit Trail to Monitor and Analyze Trading Activity (July 11, 2012) [hereinafter July Press Release], *available at* http://www.sec.gov/News/PressRelease/Detail/PressRelease/1365171483188#.UkXTmMi3A0M.

system, with widely varying content, form, and quality.[391] With respect to HFTs, which often place and rapidly cancel enormous numbers of unexecuted orders, the lack of comprehensive data on unexecuted orders cripples attempts to monitor or even understand their activities. In the wake of the Flash Crash, it took regulators weeks and months to even partially reconstruct the trading activity over even a few hours.[392]

The SEC has already promulgated a rule requiring the national securities exchanges and FINRA to establish a market-wide consolidated audit trail, which is scheduled to be implemented in stages by 2015.[393] Creation of a consolidated audit trail, while certainly a technical challenge, should be relatively uncontroversial. It will help to address several of the difficulties mentioned above. First, by providing easily accessible records of orders and trades, available in near real time, it will greatly simplify the task of regulators, and improve their ability to enforce ex ante regulations.[394] Second, it will enable private parties injured by HFT manipulation or other activities the possibility of reconstructing trading activity to establish causation and responsibility.[395] More broadly, it will provide a wealth of information about HFTs' activities, allowing the development of better best practices regulation, and enabling market participants to understand HFT and protect themselves against parasitic or predatory strategies.

B. *Best Practices Regulation*

It is, of course, not possible to lay out a full program of best practices regulation here. Certainly it should include a clarification of what kinds of HFT activities qualify as market manipulation—namely, by expanding the definition given by Easterbrook and Fischel to include strategies where the placement and cancellation of large numbers of orders that are intended to move prices, even where there is no actual manipulative trading.[396] A program of best practices regulation should likely also include

391. *Id.*
392. *See supra* note 40 and accompanying text.
393. *See* 17 C.F.R. § 242.613 (2012); July Press Release, *supra* note 390.
394. July Press Release, *supra* note 390.
395. *See supra* text accompanying notes 124–33.
396. FRANK H. EASTERBROOK & DANIEL R. FISCHEL, THE ECONOMIC STRUCTURE OF CORPORATE LAW 253–54, 279–81 (1991).

requirements that trading algorithms—whether used by HFTs or by other algorithmic traders—be stress-tested against a full range of market conditions prior to being introduced into the real market.

Increasing transparency by requiring more information be provided in the consolidated data feed would also likely be beneficial. The ability to view the entire limit order book in real time, together with liquidity and order imbalance statistics, would allow traders to assess liquidity and compete to provide it when needed. Perhaps the only real argument against requiring such information to be provided to the consolidated feed is that it is unnecessary. Responding to market demand, most markets already make such information available in near real time for a fee,[397] and it is unclear whether many traders exist who could and would make use of such information, but lack access to it. The main impact of a regulatory requirement may thus be that the cost of providing the information is spread across the whole market, rather than being borne by the traders who profit most directly from it. Nonetheless, this may be desirable if the information leads to systemic improvements in liquidity and reductions in trading costs.

More useful than a catalog of such regulations, however, is a word of caution about how *not* to proceed, with an emphasis on various proposals for ex ante regulation that are problematic. Some commentators have called for a registration requirement for HFTs.[398] As an initial matter, there is no bright line between HFT and other forms of algorithmic trading. As a result, any registration requirement is likely to involve arbitrary line drawing and subsequent distortions as market actors adjust their activities to remain on one side of the line.[399] Furthermore, by adding compliance costs to trading, a registration requirement would hinder entry by new firms and degrade competition.[400] Registra-

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397. *See NYSEOpenBook*, NYSE TECH., http://www.nyxdata.com/openbook) (last visited Dec. 6, 2013).

398. Nina Mehta, *High-Frequency Traders Should Be Registered to Aid Oversight, Chilton Says*, BLOOMBERG (Mar. 9, 2012), http://www.bloomberg.com/news/2012-03-09/boost-high-frequency-trading-firm-oversight-cftc-s-chilton-says.html.

399. Ziliak, *supra* note 383.

400. Edgar Ortega Barrales, *Lessons from the Flash Crash for the Regulation of High-Frequency Traders*, 17 FORDHAM J. CORP. & FIN. L. 1195, 1251–52 (2012).

tion is also likely to be of dubious value in policing HFT.[401] As an advisory group convened by the CFTC concluded—in a report recommending against registration of HFTs—"[f]ocus should be on specific behaviors that undermine market integrity irrespective of the means or pace of order entry."[402] A reliable audit trail is likely to be of far more value in detecting such behaviors, and without the distortions that would accompany a registration requirement.

Bans on whole types of HFT activity would face similar definitional problems, as they would inevitably overlap with legitimate trading strategies. Some, for example, have called for a wholesale ban of "layer[ing],"[403] but legitimate market making activities can involve placing and rapidly adjusting limit orders not easily distinguishable from objectionable layering.[404] Thus, such a ban would need to be crafted with great care to avoid disrupting legitimate activities in a way that harms liquidity. It should also be recalled that those most likely to be fooled by layering are other sophisticated traders and HFTs.[405] Not only are such traders likely able to protect themselves by designing better algorithms, but they are only fooled in the first place because they are engaging in a form of liquidity hunting that is itself of dubious value to the markets.[406] As a result, the net gains from bans are not necessarily compelling, as compared to a more limited strategy of targeting individual bad actors.[407]

Other crude steps to curb HFT activity, such as minimum order durations, are also potentially destructive with unclear bene-

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401. Silla Brush, *High-Frequency Trading Registration Studied by U.S. Regulator*, BLOOMBERG (June 20, 2012), http://www.bloomberg.com/news/print/2012-06-20/high-frequency-trading-registration-studied-by-u-s-regulator.html.

402. *Id.*

403. *See* Prewitt, *supra* note 183, at 156.

404. *Compare* Jones, *supra* note 197, at 6 (describing limit orders as an instrument trading vendors use to allow market makers to quickly post and update their interest in particular trades), *with* Herbert Lash, *Update 2- Regulators Fine Trillium for Illicity "Layering" Trades*, REUTERS, Sept. 13, 2010, http://www.reuters.com/article/2010/09/13/financial-trillium-settlement-idusn1318717320100913 (describing layering as using non-bona fide limit orders to create the appearance of substantial buying or selling interest).

405. *See supra* text accompanying note 168.

406. *See supra* Part IV.

407. In addition to the Trillium case mentioend at notes 151–56, in September of 2012, the SEC levied $4 million in fines against Hold Brothers On-Line Investment Services for allowing its clients to engage in allegedly manipulative layering. *See* Whitney Kisling, *SEC Says New York Firm Allowed High-Speed Stock Manipulation*, BLOOMBERG (Sept. 25, 2012), http://www.bloomberg.com/news/2012-09-25/sec-says-new-york-broker-allowed-high-speed-stock-manipulation.html.

fits. The ability to readjust orders at a very high speed in reaction to changing market conditions is one of the primary drivers of the narrowing of spreads in the past decade. Reducing the speed at which market makers are allowed to react would necessarily require them to increase spreads to compensate for the increased risk of being wrong footed by changing conditions.[408] European regulators have recently voted to implement a 500 millisecond "minimum resting time" for orders.[409] Formal implementation is not due to occur until 2015,[410] but U.S. regulators would do well to wait to observe the effects in Europe before going down the same road.

Nor should regulators be overeager to protect exchange operators from HFTs. As noted above, the trading venues themselves have both the ability and the incentive to protect themselves against HFTs abusing market infrastructure or exploiting liquidity rebates without providing corresponding benefits. A one-size-fits-all solution imposed by regulators may simply serve to cut off competition among venues to develop optimal systems.

Similarly, as noted above, regulators should resist the temptation to protect sophisticated entities from the consequences of their own negligence. There is an inherent tension in trying to prevent harm from negligence in this context, in that the greatest harm tends to fall on the negligent party itself. With this in mind, a number of recent regulatory actions appear suspect. The SEC moved to ban "stub quotes" soon after the Flash Crash.[411] While this is unobjectionable in itself, stub quotes would not have existed in the first place except for poorly designed market making requirements, preventing market makers from leaving the market, but allowing meaningless participation via stub quotes.[412] The

408. Owain Self, head of algorithmic trading at the investment bank UBS, explained that "if you're trading an ETF . . . where the underlying price of the constituents could change thousands of times a second, and you are only allowed to update your quotes twice a second, you are going to have to have a wider spread to allow for that volatility on the underlying price. So spreads are bound to widen." *Minimum Resting Time*, *supra* note 136.

409. *Id.*

410. *Id.*

411. Proposed Rule Change Relating to Quotation Requirements on the Alternative Display Facility, Exchange Act Release No. 34–62,953, 75 Fed. Reg. 59,300, 59,300 (September 20, 2010) (internal quotation marks omitted). The SEC rule requires market makers to place bids and offers within a "band" around the best bid or offer—a band of 8% on either side for most securities. *Id.*; FINRA Manual § 6272(a)(5)(B)(i) (2011)).

412. *See* Testimony Concerning the Severe Market Disruption on May 6, 2010 Before the H. Subcomm. On Capital Mkts., 111th Cong. 8–9 (2010) (statement of Mary L.

SEC also quickly moved to require trading venues to clarify when trades would be cancelled as "clearly erroneous"—a subject of some confusion in the immediate aftermath of the Flash Crash.[413] Ironically, these two new rules may work together to injure retail traders. A market order by a retail investor[414] that executes against a stub quote would almost certainly be considered clearly erroneous, and would be cancelled. The 2010 rule disallows true stub quotes of a penny or $100,000, but allows quotes up to eight percent away from the best price under most circumstances—far enough away to injure an unsuspecting retail trader placing a market order, but not always far enough away to be cancelled as clearly erroneous.[415]

Cancellation of "clearly erroneous" trades is problematic for at least two additional reasons. First, and most related to negligence harms, perhaps the most likely party to an "erroneous" trade is the trader whose negligence precipitated the unwarranted price move in the first place.[416] To allow them out of the trade would be to allow the negligent party to escape some of the consequences of their negligence, reducing deterrence.

Furthermore, often the quickest way for the price of a security to recover from a sudden spike or plunge caused by trading irregularities is for arbitrageurs to enter the market and drive the price back toward fundamental value.[417] To reduce the risk involved, arbitrageurs typically attempt to hedge their trades.[418] If, for example, IBM plunges fifty percent for no apparent reason, an arbitrageur might simultaneously buy large amounts of IBM and

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Schapiro, Chairman, U.S. Securities and Exchange Commission), *available at* http://www.sec.gov/news/testimony/2010/ts051110mls.pdf.

413. Proposed Rule Change to Amend FINRA Rule 11892 (Clearly Erroneous Transactions in Exchange-Listed Securities), Exchange Act Release No. 34–62,341, 75 Fed. Reg. 36,756, 36,756 (June 21, 2010).

414. A "market order" is an order seeking immediate execution at the best available price, no matter what that price is. *See supra* note 107.

415. The SEC rule generally requires a trade to be at 10% away or more from the average price over the preceding five-minute period to be broken as "clearly erroneous." *US to Adopt Harmonised Erroneous Trade Breaks*, THE TRADE NEWS (June 18, 2010), *available at* http://www.thetradenews.com/news/Trading___Execution/Regulation/US_to_adopt_harmonised_erroneous_trade_breaks.aspx.

416. *See* Press Release, U.S. Sec. & Exch. Comm'n, SEC Approves New Exchange Rules for Breaking Clearly Erroneous Trades (Oct. 5, 2009), http://www.sec.gov/news/press/2009/2009-215.htm.

417. Randall Billingsley, *Arbitrage, Hedging, and the Law of One Price*, FIN. TIMES (Nov. 4, 2005), http://www.ftpress.com/articles/article.aspx?p=417513&seqnum=3.

418. *See id.*

short an index fund. If, however, the trades in IBM are subsequently canceled as "clearly erroneous," while the hedging trades are not, the arbitrageur could be left with a large loss. The net result is to increase the risk to arbitrageurs of correcting severe mispricings. While clear rules for handling of erroneous trades are likely better than unclear rules, these considerations demonstrate the importance of proceeding with care in their design.

Also problematic are proposals for registration, review, and approval of new algorithms. While some regulation of new algorithms is likely justified, an advisory group convened by the CFTC to study the issue recently concluded that such measures "would be an ineffective use of budgetary resources with unclear benefits."[419] The potential problems with registration and audit are at least three-fold. First, given the ubiquity of algorithmic order execution, regulators would face serious definitional problems if they are to avoid micromanaging all trading. Second, regulators are highly unlikely to have—or to be able to obtain—the necessary expertise to do a better job of evaluating the soundness of new algorithms than the actual creators of those algorithms, who already have enormous incentives to ensure their safety and quality.

Third, in response to changing market conditions and a changing competitive landscape, HFTs (and other traders) adjust their algorithms and introduce new ones on a continuous basis. The life cycle of a typical HFT algorithm can be as short as a few weeks.[420] Not only would this speed of turnover swamp the resources of regulators, but anything other than the most cursory review process would radically slow the speed at which new algorithms could be developed, introduced, and improved. This could result in an undesirable choking off of innovation in what is still very much a maturing industry. It could also result in older algorithms remaining in the market longer, where they will be more vulnerable both to changing market conditions that render them suboptimal, and also to reverse engineering and exploitation by other traders.

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419. Brush, *supra* note 401.

420. *See* Frank Partnoy, *Don't Blink: Snap Decisions and Securities Regulation*, 77 BROOK. L. REV. 151, 172 (2011).

Thus, despite the surface appeal of greater regulatory supervision of HFTs, in practice, regulators must tread carefully, lest the costs and disruptions involved swamp any tangible improvements. Nor is window-dressing regulatory approval simply harmless. Indeed, there is some risk that regulatory approval—even where such approval is of dubious value—will come to substitute for more effective diligence by HFTs themselves. Just as mortgage brokers and investment banks were able to hide behind ratings agencies and Fannie Mae during the mortgage securitization debacle, HFTs whose algorithms go rogue could plausibly deflect accountability by pointing to SEC or CFTC approval of those algorithms as evidence they took appropriate care.

C. *Ex Post Liability*

Ex post liability can mean at least two things in this context. Most obviously, it means tort-like liability to parties who are harmed by HFT misconduct. In this sense, plaintiffs will be able to take advantage of the doctrine of negligence per se to recover from HFTs who engage in market manipulation or otherwise fail to comply with applicable protective regulation. Private litigation can serve to supplement regulatory enforcement actions as deterrence to wrongdoing. Perhaps more importantly, litigants can attempt to demonstrate that behavior that is not covered by ex ante regulation was nonetheless wrongful under the particular circumstances. As such, liability can not only remedy incomplete enforcement, but also incomplete regulatory coverage.

More important than tort liability, however, is straightforward contract liability. As the example of Knight Capital Group shows, a single rogue algorithm is capable of generating hundreds of millions of dollars in losses before human intervention is able to rein it in.[421] In the event, Knight had sufficient trading capital to cover its losses, though doing so effectively destroyed the firm.[422] It is quite possible, however, for HFTs' algorithms to generate losses beyond those HFTs' ability to pay, thus introducing counterparty risk to the public securities markets.

Protecting against this risk should be a regulatory priority. Neither regulatory fines nor liability regimes can be effective in

421. Ruhle et al., *supra* note 232.
422. *Id.*

achieving their deterrence and compensation goals if defendants are insolvent.[423] Private solutions to insolvency risk, such as insurance and bonding, are potentially available.[424] Indeed, exchanges and brokerages generally require posting of collateral, and all manner of engineered insurance mechanisms are available.[425] Such private solutions may not be fully effective where HFTs have naked access to an exchange via a sponsoring exchange member.[426] In the immediate wake of the Flash Crash, the SEC moved to ban naked access.[427] While this is a measure that likely could have been taken by trading venues themselves, if subjected to competitive pressure, it at least serves to make clear the responsibility (and liability) of the sponsoring broker for trades made using their systems. It is unclear, though, whether such clarity actually necessitates orders being physically routed through the exchange member's systems, as the SEC proposal requires. This requirement may create unnecessary latency issues for sponsored traders, while not reducing risk any more than a simple requirement of liability for the sponsoring member.

If these measures fail to eliminate HFT-generated counterparty risk, a mixed liability/government insurance regime may be feasible. The FDIC is an example of such a system.[428] Under such a regime, algorithmic traders could be required to contribute to a central fund that would cover liabilities if the responsible trader becomes insolvent. The fund could be backed up by taxpayers. The result is a responsibility waterfall: first the responsible firm to the limit of its resources, then the fund, then the government. Firms could be assessed fees according to their level of risk in order to mitigate moral hazard.

D. *Improved Circuit Breakers*

Improved circuit breakers have probably received the most regulatory attention in the wake of the Flash Crash. This single,

423. *See* Merrill & Schizer, *supra* note 36, at 249.
424. *Id.*
425. *See, e.g.*, *id.* at 249–50.
426. Yoon, *supra* note 100, at 928–29; *see supra* 296–97 and accompanying text.
427. *See supra* note 297 and accompanying text.
428. 12 U.S.C. § 1821 (2012). Examples abound in other industries as well. *See, e.g.*, The Oil Pollution Act, 33 U.S.C. § 2712 (2010) (regarding oil spills); The Price Anderson Act, 42 U.S.C. § 2210 (2006) (regarding nuclear accidents).

relatively simple measure is likely sufficient to mitigate the most unique and dangerous risk associated with HFT. Single-stock circuit breakers were among the first regulatory proposals rolled out, and implementation of improved market-wide circuit breakers and a full limit up-limit down system for individual securities is imminent.[429] While some have questioned the complexity of the new rules,[430] circuit breakers are the most straightforward way to prevent a repeat of the major dislocations of the Flash Crash or the smaller dislocations seen in the numerous mini-Flash Crashes before and since. Particularly once the limit up-limit down procedures are fully in place, such systems should prevent the worst incidences of extreme volatility while preserving the positive benefits of HFT. While individual trading venues could implement circuit breakers themselves—and would have incentives to do so if investors believed them to be beneficial—the reality of a national market system likely makes harmonization necessary. If one trading venue were to institute a trading halt while others did not, spillover trading in the affected securities—and related derivatives—could flow to and overwhelm other trading venues.[431]

CONCLUSION

The market events of May 6, 2010 were a wake-up call that the new world of HFT brought with it new dangers, in addition to its benefits. Thus far, however, a scholarly debate on how best to approach HFT—or even to think about the issues involved—has been strangely lacking in the legal literature. This article seeks to begin the conversation. As such, I have provided at least a sketch

429. Exchange Act Release No. 62,252, *see supra* note 42, at 8–9, 11. The new procedures were scheduled to be introduced in February, 2013, but have now been delayed until at least April. *See FINRA Pushes Back Circuit Breaker Implementation*, CME GROUP (Feb. 7, 2013), http://www.cmegroup.com/education/market-commentary/industry-news/2013/02/pre-open-industry-news_295.html?source=rss; Anish Puarr, "Market Opts for Cautious US Circuit Breaker Rollout," THE TRADE NEWS (Jan. 8, 2013), http://www.thetradenews.com/USA/newsarticle.aspx?id=6442451270.

430. *See, e.g.*, Tom Steinert-Threlkeld, *Switching Chairs at SEC Delays Market Structure Changes*, SEC. TECH. MONITOR (Jan. 24, 2013), *available at* http://www.securitiestechnologymonitor.com/news/switching-chairs-at-sec-delays-market-structure-changes-31551-1.html? (quoting one trader as saying "I kind of fear [the new rules] will make markets more complex" and another as saying "If anybody really understood [how to carry out the rules], I would be really surprised").

431. *See* IOSCO REPORT, *supra* note 134, at 58–59.

of the main forms of HFT activity, and attempted to erect a useful framework for considering regulation of those activities.

This framework is a mix of structural reform and regulation. A core element of the strategy is best practices regulation, which will serve to reassure a worried public, and can gradually expand as we develop more experience and knowledge of HFT. Meanwhile, continuing private incentive to develop improved best practices can be maintained by backstopping regulation with a robust regime of liability. Such a backstop will also allow regulators the luxury of not being forced to mandate best practices before we know enough to do so effectively. A key challenge in such a liability regime is ensuring that defendants do not escape liability via insolvency, a problem addressed above.

Aiding both of these regulatory strategies will be a consolidated audit system ensuring that reliable and comprehensive information regarding HFT is generated in close to real time. A consolidated audit trail would allow regulators and private actors to rapidly reconstruct all trading activity and identify the parties responsible for each order. Such a system will enable the quick investigation of unusual market events and, if appropriate, the reliable assignment of liability to the responsible parties. It will also provide a valuable source of data for identifying emerging risks and designing new regulatory strategies to address those risks.

Finally, the most novel and dangerous risk posed by HFT—the risk of catastrophic volatility spikes like the Flash Crash—can be prevented by improved market-wide circuit breakers designed to temporarily halt trading in individual securities during periods of unusual volatility.

A full program of regulation is well beyond the scope of this article. The general framework presented here is targeted to the particular risks of HFT, but avoids measures that threaten to undermine the liquidity and efficiency benefits of HFT while providing only questionable protection against the targeted harms.

Congress of the United States
Washington, DC 20515

April 21, 2014

Chair Mary Jo White
U.S. Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549

Dear Chair White:

With the Securities and Exchange Commission's Final Rule on Conflict Minerals now fully upheld by the United States District Court for the District of Columbia and with that decision largely affirmed by the United States Court of Appeals for the District of Columbia Circuit, we write to urge that all due diligence and other reporting requirements due on the May 31, 2014, initial filing deadline move forward as promulgated. This SEC rule was drafted in a balanced and thoughtful way that followed Congressional intent in trying to provide greater transparency in the use of key minerals that fuel horrific violence in the Democratic Republic of Congo (DRC). With strong court decisions affirming the key components of the rule, no delay is warranted in the implementation of those requirements while any remaining free speech issues are resolved (namely the listing of specific products that are not "DRC Conflict Free" and the requirement for companies to also post their reports on their own websites).

This original conflict minerals law sought to address the conflict minerals black market and resulting violence in DRC – violence which has claimed more than five million lives and earned eastern Congo the ominous designation as the "Rape Capital of the World." This deadliest conflict since World War II is fueled, in part, by the mining and trade of minerals used in everything from cell phones, to jewelry, to airplanes.

As such, the law we passed was simple. Congress said that any company registered in the United States which uses any of a small list of key minerals from the DRC or its neighbors has to disclose in its SEC filing the use of those minerals and what is being done, if anything, to mitigate sourcing from those perpetuating DRC's violence. Such transparency allows consumers and investors to know which companies source materials more responsibly in DRC and serves as a catalyst for industry to finally create clean supply chains out of Congo. This key provision was upheld in both court rulings.

We urge the SEC to continue implementation of this rule in light of the judicial validation of both the underlying statute and the SEC's promulgated rule. We also thank the Commission for its notable work on this important topic.

Sincerely,

Richard J. Durbin
U.S. Senator

Jim McDermott
Member of Congress

Tim Johnson
U.S. Senator

Maxine Waters
Member of Congress

Benjamin L. Cardin
U.S. Senator

Raul M. Grijalva
Member of Congress

Barbara Boxer
U.S. Senator

Jim Moran
Member of Congress

Sherrod Brown
U.S. Senator

John Lewis
Member of Congress

Ed Markey
U.S. Senator

Gwen Moore
Member of Congress

Questions for the Record from Representative Keith Ellison

The Honorable Mary Jo White, Chair, Securities and Exchange Commission

April 29, 2014
Hearing

Question 1: Extensible Business Reporting Language (XBRL)

Is the SEC the only financial regulator that still collects two versions of every financial statement: one in plain text and another in a structured searchable database? If not, which other regulators collect both paper documents and a searchable database.

How long does the SEC intend to keep this duplicative requirement to file the same information twice?

Response: When the Commission proposed in 2008 to require financial statement information in structured data format – specifically XBRL – it also proposed to continue to require that information in traditional format so it could monitor the usefulness of, and cost and ease of providing, structured data before attempting further integration of the structured data format. It noted, however, that after evaluating the use of new structured data technologies, software and lists of electronic tags, it might consider proposing rules to eliminate financial statement reporting in traditional format or require a filing format that integrates the traditional format with the structured data format.

The vast majority of commenters that addressed the dual format issue stated that the Commission should continue to require financial statements in traditional format even if it required structured data format as well. Most of these commenters also stated that the Commission should monitor the development of technology that could enable companies to file information in a manner that provides the processing benefits of structured data and the visual clarity of the traditional format. These commenters reasoned that when such technology is developed, it would be appropriate to require only the single resulting format. In light of these comments, in 2009, the Commission adopted rules that require financial statement information in structured format in addition to the traditional format. In so doing, the Commission stated its belief that investors and analysts may wish to use the traditional format to obtain an electronic or printed copy of the entire registration statement or report either in addition to or instead of disclosure formatted using structured data.

Staff is now considering how the use of an "inline" method for providing structured data might improve the filing of financial information in a structured data format. Such a method of filing would allow companies to integrate structured data into their filings containing financial statements, such as the Form 10-K, rather than present it in an exhibit. Eliminating the requirement to file certain structured data in an exhibit separate from the company's traditional format financial statements may ease filer burden and

enhance the quality of the structured data submissions.

Other regulators may collect and store financial information in ways that differ from the Commission's requirements. We are not, however, aware of all the formats they use or their reasons for using them.

In July 2013, the SEC's Investor Advisory Committee asked the SEC to adopt structured data formats, like XML and XBRL, for everything it collects. Today, most of the SEC's 800+ forms are just documents, not structured data. When will the SEC respond to the Investor Advisory Committee's recommendation that the agency adopt structured data formats for its whole reporting regime, to make all of the information fully downloadable and searchable? What will the response be?

Response: The Commission has a longstanding commitment to make information contained in filings more usable and accessible to investors and the Commission. For example, the Commission and its staff have incorporated considerations of structured data into the rulemaking process. The Commission recently adopted rules to require loan-level disclosure for asset-backed securities in XML format so that investors may more easily access and analyze data about the asset pool. In the rule proposal relating to crowdfunding, the Commission proposed rules that would require filing of certain information in a structured format so that the Commission can collect key information about offerings and investors can compare investment opportunities. In addition, consistent with the Advisory Committee's recommendation that the Commission take steps designed to reduce the costs of providing structured data, the staff is considering whether the "inline" method of filing structured data described above might improve the filing of structured data and reduce the costs associated with current filing requirements.

When the Commission is considering new disclosure requirements or updating existing requirements, the Commission also considers what information is most usefully disclosed and then considers whether that information can and should be structured. It is important to keep in mind that not all information may be usefully tagged.

How is the SEC enforcing data quality in XBRL? Has the SEC sent out letters to any firm asking them to fix their data in XBRL? Will the SEC step up efforts to increase compliance?

Response: The staff continues to work on ways to improve the quality of structured data in company filings. When the Commission adopted rules to require companies to submit financial information in a structured format using XBRL in an exhibit to their filings, it provided a phase-in period for companies to adjust to the requirement. Throughout the phase-in period, the staff provided guidance on how to comply with the rules to enhance the quality of the data and updated the taxonomies – the dictionaries of financial terms with associated data tags – to enhance comparability across companies and filings.

That work continues today. For example, the staff recently posted to the SEC's website an assessment of custom tag use. The staff also is examining whether further enhancements

to the filing requirements could enhance the quality of the structured data submissions and is considering how the use of the "inline" method described above might improve the quality of structured data.

In addition, as you know, the Division of Corporation Finance staff selectively reviews annual and periodic filings to monitor and enhance compliance with applicable disclosure and accounting requirements, consistent with the review mandate of Section 408(c) of the Sarbanes-Oxley Act of 2002. These reviews involve an evaluation of company disclosure. If the staff becomes aware of an error in the structured data in connection with these reviews, it would treat the error the same as other filing errors. If the error appears to cause the filing to be materially non-compliant or deficient, the staff would request, via letter or telephone, that the company amend the filing to correct the error regardless of the company's size or whether the filing was otherwise subject to staff review. In addition, the Division of Corporation Finance also will address filing errors that it sees broadly across filings to make registrants aware of review findings. For example, in July 2014, the staff posted to the SEC's website a sample letter it sent to companies that failed to include certain required calculation relationships in their filings.

As you know, this Committee considered The Small Company Disclosure Simplification Act (H.R. 4164) which would exempt many firms from compliance. Do you have any concerns about that bill?

<u>**Response:**</u> The Commission is committed to using developments in technology and electronic data communications to facilitate greater transparency in the form of easier access to, and analysis of, information. I believe that requiring financial statement information in structured data format enables investors and others to search and analyze the financial information dynamically and facilitates comparison of financial and business performance across companies, reporting periods and industries. To the extent companies would be exempt from this requirement, the structured financial data available to the SEC and public would be less complete and, as a result, the exemption could reduce the extent to which these benefits are realized.

Access to significant amounts and types of data, both structured and unstructured, also is vital to the Commission's work of regulating the U.S. capital markets. Using structured data, the staff can systematically and efficiently analyze, and draw conclusions from, large quantities of information. Nearly all of the data analyses the staff performs in support of rulemaking and risk assessment activities depend on structured data, as these activities require the staff to scrutinize and compare large amounts of information. A less complete set of structured financial data could reduce the staff's ability to conduct its work.

Question 2: Mandatory Arbitration

Last week, FINRA stopped Charles Schwab from requiring its investors sign contracts that took away their rights to join a class action lawsuit. This is a positive step for

investor protection. However, the mandatory arbitration provisions in agreements between investors and their investment advisors and broker-dealers remain. When will the Commission exercise its authority under Section 921 of the Wall Street Reform Act to ban or limit the use of these clauses?

> **Response:** The use of pre-dispute mandatory arbitration agreements by broker-dealers and investment advisers is a very important issue and has long been the subject of vigorous debate. Through various past requests for comment, the Commission has received a number of comment letters reflecting disparate views with respect to the mandatory arbitration of securities disputes. While the Commission has not yet determined whether to exercise its Section 921 authority, the Commission staff continues to explore issues related to pre-dispute mandatory arbitration agreements, including the costs to investors and other market participants, as well as fairness in arbitration forums.

Question 3: CEO Pay Ratio

This month, Demos published the report "Fast Food Failure." This report found that the CEO to average worker pay ratios in the fast food industry routinely are greater than 1,000 to one.

Furthermore the report finds that companies that fail to pay their employees a living wage are often less efficient than firms that pay their workers more fairly. Other studies have found that firms with high CEO: median employee pay ratios are led in a more risky manner. CEO pay ratios are relevant to investment decisions.

When will the SEC move to finalize its rule under Dodd-Frank 953(b), which provides for disclosure of the CEOs pay as a multiple of the median-paid employee?

> **Response:** The Commission has proposed rules to implement Section 953(b), and completing this rulemaking, as with all of our congressionally mandated rulemakings, is a priority for me. As evidenced by the voluminous public comment file on the Commission's website, this rulemaking requires careful consideration of a number of significant issues. We have received more than 128,000 comment letters, including over 950 unique letters from a variety of stakeholders. These letters reflect a wide range of views concerning the proposed rules and the potential costs and benefits associated with their requirements. The staff is carefully reviewing and analyzing all comments as it develops final rule recommendations for the Commission's consideration.

Question 4: Funding for the SEC

I remain concerned that the Securities Exchange Commission lacks adequate funding. I have read a number of books and articles about SEC enforcement actions. Many of these report SEC enforcement staff tediously picking through phone logs or emails. Yet, Wall Street has access to software that makes this work more efficient.

What are recent technological purchases made by the SEC that have made enforcement actions more effective and efficient? If the SEC received a 20% funding increase, can you give me two examples of technology that the SEC would like to acquire to make investigations more efficient and accurate?

Response: It is a high priority for me to continue the agency's investments in the technologies needed to keep pace with today's high-tech, high-speed markets.

The Commission's information technology (IT) investments are designed to provide staff with the tools necessary to efficiently and effectively protect investors. Our IT investments represent a broad effort that ranges from the basic, such as periodic software and hardware upgrades, to the complex, such as developing and purchasing advanced analytical tools designed to prospectively detect fraud. By improving the entire spectrum of tools, our IT investments amplify the staff's ability to spot individual instances of misconduct and identify macro-level, systemic concerns.

For example, the Division of Enforcement has made large investments in upgrading its IT Forensics Lab capabilities as well as moving its investigations to a modern, comprehensive e-Discovery platform. The Forensics Lab routinely assists the investigative staff in retrieving digital evidence and can help establish links between wrongdoers engaged in insider trading and other misconduct. Additionally, the e-Discovery platform provides staff with more comprehensive search capabilities and a quicker, more robust method to review documents and conduct investigations.

In addition, the Office of Compliance Inspections and Examinations (OCIE) recently introduced the National Exam Analytics Tool, which empowers examiners across the National Exam Program to access and systematically analyze large volumes of trading data through a series of standard reports and analytics. The ability to flag certain transactions and anomalies in trading data helps identify potential misconduct and trends in the market. OCIE's Risk Analysis Examination team – which leverages technology to conduct cross-firm review involving large quantities of data from clearing firms – also collected and analyzed hundreds of millions of trading records, identifying a wide range of problematic behavior.

The Commission also has initiated the implementation of a centralized data analysis platform to receive, house, transmit, and analyze the huge quantities of data we receive. The data analysis platform is a basic, but crucial, element of the IT improvements at the Commission. It provides a state-of-the-art foundation for the new tools we have implemented to detect potential misconduct. The platform gives staff the ability to make connections that are not otherwise apparent in the data and more easily identify market trends and aberrant behavior, which is often indicative of potential misconduct.

The Commission recently invested in innovative systemic risk detection technologies. These tools harness the breadth of data that the Commission receives and

helps synthesize that data into actionable information. They also automate tasks that otherwise would be completed manually using slower methods and tools, thereby making our limited staff more effective and efficient.

In terms of how we might enhance our technological capabilities with respect to investigations if we received a funding increase, the Division of Enforcement is evaluating new technologies that would make it more efficient to assess large volumes of information, including early case assessment, financial statement processing and other analytical tools, as well as text and audio search capabilities. By way of example, the Division has been assessing an analytical platform that provides advanced search and discovery capabilities, integrates structured and unstructured data, provides for quantitative analytics and helps to visualize connections within large data sets to enable investigative attorneys and staff to quickly and efficiently identify securities frauds. Additionally, the Division is preparing to modernize its "bluesheet" technology system, which collects and analyzes stock trading data from market participants. The current system was designed more than a decade ago, and is inefficient and slow to process the larger data sets now commonly seen in high-frequency trading. Additional funding could better ensure that these and other important technology projects are fully implemented.

More broadly, our ability to continue using the Reserve Fund established under the Dodd-Frank Act is important to the SEC's future IT investments. The SEC has dedicated the Reserve Fund to critical IT upgrades, and, if funding permits, plans to continue investing in areas such as data analysis, EDGAR and sec.gov modernization, enforcement and examinations technologies, and business process improvements.

If the SEC does not receive sufficient additional resources, the agency will be unable to build out its technology and hire the industry experts and other staff needed to oversee and police our areas of responsibility, especially in light of the expanding size and complexity of our overall regulatory space.

Question 5: Response to public statements

There remain strongly held views in some quarters that the SEC is not willing to take on the most powerful titans on Wall Street when it matters. I entered a recent speech of former SEC attorney employee James Kidney who said:

The SEC has become "an agency that polices the broken windows on the street level and rarely goes to the penthouse floors...On the rare occasions when enforcement does go to the penthouse, good manners are paramount. Tough enforcement, risky enforcement, is subject to extensive negotiation and weakening... superiors were more focused on getting high-paying jobs after their government service than on bringing difficult cases."

This accusation that *Rolling Stone* reporter, Matt Taihbi continues to make about SEC being afraid of punishing Wall Street.

What is your response to these concerns that the SEC does not hold bad actors on Wall Street accountable? Are some executives and firms "too big to bar?

Response: I agree that it is critical for the SEC to pursue wrongdoers at every level, including Wall Street senior executives and officers. No executives or officers are "too big to bar." The SEC has a proud history of holding bad actors accountable, including those of every seniority on Wall Street. Our success pursuing misconduct related to the financial crisis is a case in point. To date, we have charged 169 individuals and entities with wrongdoing stemming from the financial crisis, including prominent Wall Street firms such as Goldman Sachs, JPMorgan, and Bank of America. That tally includes bars or suspensions against 40 individuals from working in the securities industry, serving as officers or directors of public companies, or practicing before the Commission, as well as over $3 billion in disgorgement, penalties, and other monetary relief ordered.

The SEC also has amassed a strong record pursuing top officials as we have brought actions against 70 CEOs, CFOs, and other senior executives for wrongdoing related to the financial crisis. Where we have had evidence to charge bad actors who occupied significant positions of authority at prominent financial institutions, we have done so, including, for example, the two top executives at Countrywide Financial for deliberately misleading investors about its credit risks and the CFO of Citigroup for causing the bank to make misleading statements about its subprime exposure.

As these actions make clear, the Commission seeks to hold all wrongdoers accountable for their misconduct, regardless of size or status, and is willing to employ powerful remedies to protect the public from future harm, including significant monetary penalties and barring wrongdoers from the industry or appearing before the Commission.

Question 6: Waiver for Royal Bank of Scotland Group Plc

Under federal securities laws and regulations, criminal convictions automatically preclude financial institutions from eligibility as a Well-Known Seasoned Issuer ("WKSI"). WKSI confers numerous benefits to filers. Considering this requirement, why did you vote to approve a waiver to let Royal Bank of Scotland Group Plc continue doing business as usual despite the recent criminal conviction of the bank's Japanese subsidiary for manipulating the London interbank offered rate? The Royal Bank paid a $100 million fine and agreed to a deferred-prosecution agreement for the parent company. The SEC vote to approve the waiver was 3-2, with dissenting votes by Stein and Commissioner Luis Aguilar.

Should a fraud violation, whether criminal or civil, result in the disqualification of a company from receiving the designation of a "Well-Known Seasoned Issuer"?

Response: While it would not be appropriate to discuss the Commission's internal decision making in a particular matter, I can assure you that the staff and each Commissioner in every case presented carefully considers the applicable standards and

policies in the context of all the relevant facts and circumstances presented before arriving at a recommendation or decision to grant or deny a waiver.

Under the Commission's rules, a well-known seasoned issuer (WKSI) is an issuer that is current and timely in its reports filed pursuant to the Securities Exchange Act of 1934 for at least one year and has either $700 million of publicly-held shares or has issued $1 billion of non-convertible securities, other than common equity, in registered offerings for cash in the preceding three years. The WKSI regime is intended to facilitate access to the capital markets by eligible issuers who are comparatively well-known to the marketplace. An issuer can lose its WKSI status by becoming an "ineligible issuer" if the issuer (or its subsidiary) is convicted of certain felonies or misdemeanors specified in Section 15(b) under the Exchange Act; violates the anti-fraud provisions of the federal securities laws; or is the subject of a judicial or administrative decree or order (including a settled claim or order) prohibiting certain conduct or activities regarding the anti-fraud provisions of the federal securities laws. Rule 405 of the Securities Act of 1933 allows the Commission to grant a waiver from ineligible issuer status (WKSI waiver) upon a showing of "good cause" and a determination by the Commission that the disqualification "is not necessary under the circumstances."

In my view, waivers of WKSI disqualifications should be granted only after a thorough analysis of the specific conduct triggering the disqualification, an analysis of other relevant facts and circumstances, and a rigorous application of the applicable standards. Waivers should not be granted to either "soften" the impact of an enforcement action nor should they be used to add additional penalties if disqualification is not warranted or necessary under the applicable standards and the facts and circumstances at issue. The burden to demonstrate that the standards are met is the responsibility of the applicant seeking a waiver.

The Division of Corporation Finance recently revised its written policy statement about WKSI waivers, which was first posted on the Commission's website in 2011 ("Revised Statement"). The Revised Statement provides clarity, consistency, and greater certainty as to the factors that are considered by the Division in determining whether or not to grant a WKSI waiver to an issuer that has become an ineligible issuer and would lose its WKSI status absent a waiver.

Why should companies with clearly fraudulent activity be allowed to speed up the process for registering their securities offerings?

Response: In adopting the rules that created WKSI status, the Commission broadly drafted the disqualification provisions and then provided a process by which it could evaluate, based on the specific facts and circumstances, whether the disqualification was necessary in a particular case. The standard that is applied in connection with a review of an application for a WKSI waiver is whether the nature of the violation or conviction involved disclosure for which the issuer or any of its subsidiaries was responsible or calls into question the ability of the issuer to produce reliable disclosure currently and in the future. As stated in the Revised Statement, "Where there is a criminal conviction or

a scienter based violation involving disclosure for which the issuer or any of its subsidiaries was responsible, the issuer's burden to show "good cause" that a waiver is justified would be significantly greater." Each of the factors noted in the Revised Statement is analyzed with the facts and circumstances surrounding the WKSI waiver prior to making a final determination.

Are you concerned that such actions create a culture of impunity where wrong doing is only lightly punished?

Response: The level of punishment assessed for the underlying violation is a separate matter that is determined either by prosecution or settlement of the relevant enforcement action. In the case of an SEC enforcement action, the Commission has a wide range of sanctions available to provide for an appropriate level of deterrence. In the case of a criminal action brought by the Department of Justice for which there is no parallel Commission civil action, the level of punishment imposed in the criminal action is not something that the Commission controls.

How many WKSI waivers has the SEC granted to institutions that were convicted of improprieties but allowed to continue as seasoned issuers in 2011, 2012 and 2013? Has the SEC granted waivers to any large financial firm after repeated violations? If so, which ones and how many waivers?

Response: In 2011 and 2012, no WKSI waivers were granted for criminal convictions. In 2013, one WKSI waiver was granted for a criminal conviction. All WKSI waivers that have been granted are posted on the Commission's website at: http://www.sec.gov/divisions/corpfin/cf-noaction.shtml#405.

In the past five years, how many institutions and broker dealers lost their WKSI status? Which ones?

Response: The staff does not track when issuers, including financial institutions and brokers dealers, lose WKSI status. There are a number of ways that an issuer can lose WKSI status, including by becoming an "ineligible issuer" resulting from a conviction for certain felonies or misdemeanors specified in Section 15(b) under the Exchange Act; violating the anti-fraud provisions of the federal securities laws; or becoming the subject of a judicial or administrative decree or order prohibiting certain conduct or activities regarding the anti-fraud provisions of the federal securities laws. In addition, an issuer can lose WKSI status in other circumstances. For example, any issuer can lose WKSI status for failure to file reports pursuant to section 13 or 15(d) of the Exchange Act during the preceding 12 months or failing to have a market value of its outstanding equity securities of $700 million or more. As the triggers for a loss of WKSI status are not solely limited to enforcement actions brought by the Commission, the staff does not and is not able to track the issuers that lose WKSI status. The staff is notified of a loss or a potential loss of WKSI status when an issuer inquires about a waiver, which is usually in connection with a conviction, violation, decree or order noted above. These inquiries, however, may be on a no-names or hypothetical basis, so the staff may not know the name of the issuer that is making the inquiry. Further, after a review of the staff policy statement outlining the factors that the staff would assess in connection with a consideration of a waiver request, some issuers may determine that a waiver would not be forthcoming and not make a request. As a

result, the staff is not able to track in any systematic or complete manner the companies, including financial institutions and broker dealers, that lose WKSI status.

Questions for Record (QFRs) for "Oversight of the SEC's Agenda, Operations, and FY 2015 Budget Request"
April 29, 2014

Rep. Michael Fitzpatrick

Chairman White, four years ago, the SEC was given authority in the Dodd Frank Act to adopt rules imposing a mandatory fiduciary duty for broker-dealers and investment advisers. The SEC asked for comments on the issue, then wrote a report, and then asked for more comments and data. And, based on what I have heard, you are having a tough time coming up with a formula that works for both investment advisers and broker-dealers.

I would like to suggest to you that, perhaps the reason it is so hard to write a rule that works for everyone is that there really are a lot of different business models, and "*one* size fits all" just may not work for everyone. And, just to take that a step further, why not just make sure all securities professionals 'disclose conflicts of interest and disclose what their obligations are, and then let investors make a choice as to who they want to deal with? I would ask you to consider that approach."

Response: I appreciate your suggestion. The question of whether and, if so, how to use its authority under Section 913 of the Dodd-Frank Act is very important to the Commission and to investors. As you know, last year the Commission issued a public Request for Data and Other Information (Request) relating to the provision of retail investment advice and regulatory alternatives. As the Commission said at the time, it sought data "to assist us in determining whether to engage in rulemaking, and if so, what the nature of that rulemaking ought to be." The Request sought comment on several alternative approaches to a uniform fiduciary standard, including expressly imposing certain uniform disclosure requirements with respect to a broker-dealer's and investment adviser's material conflicts of interest with its retail customers. Feedback on that approach and other approaches is an important consideration in determining whether and, if so, how to use the Commission's authority under Section 913.

Questions for Reeord (QFRs) for "Oversight of the SEC's Agenda, Operations, and FY 2015 Budget Request"
April 29, 2014

Rep. Scott Garrett

Asset Management SIFI Designation

On July 18, 2013, the Financial Stability Board issued a release designating 9 insurance companies including U.S. based insurer, MetLife, as a Global Systemically Important Insurer. The release states:

> **[T]he FSB, in consultation with the International Association of Insurance Supervisors and *national authorities*, have identified an initial list of nine G-SIIs**

As you are aware, the FSB is also currently examining the asset management industry for potential global designations. As they move forward with their process, it is important to identify precisely who the National Authority in the U.S. is as it relates to the asset management industry.

1. Who is the National Authority of the asset mauagement industry in the U.S.?

<u>**Response:**</u> In January 2014 the FSB and IOSCO published a Consultative Document on Assessment Methodologies for Identifying Non-Bank Non-Insurer Global Systemically Important Financial Institutions. That document proposes that the "national authority" for purposes of identifying any non-bank, non-insurer financial entities would be "a regulator or other appropriate government agency with the authority to engage in the assessment process." The Consultative Document provides flexibility with regard to the determination of the "national authority" to take into account different regulatory structures in different jurisdictions (*i.e.*, some jurisdictions have one prudential regulator with authority over the banking, insurance, and securities sectors while others have multiple regulatory authorities). As this process is still in the consultative phase, national authorities have not been identified.

2. Will this National Authority be consulted by the FSB prior to the FSB making any determinations to designate asset managers?

<u>**Response:**</u> Under the proposed methodology of the Consultative Document, the "national authority" would have a great deal of involvement in any determination to identify a non-bank, non-insurer financial entity as a SIFI. In particular, the Consultative Document proposes that the FSB and IOSCO would first need to finalize applicable sectoral methodologies for market intermediaries, finance companies, and asset management entities as well as a "guiding methodology" for all other non-bank, non-insurer financial entities. The FSB and IOSCO would then

form an international oversight group (the "IOG"), consisting of representatives from FSB and IOSCO member jurisdictions and other relevant standard-setting bodies, as well as the FSB and IOSCO Secretariat. The IOG would compile a confidential "reference" list of entities that equal or exceed the materiality threshold(s) set by the finalized sectoral methodologies. The IOG would assign any entities to the "national authority or authorities" to conduct an assessment using the methodology as a guide.

The Consultative Document recognizes that, with regard to non-bank, non-insurer financial entities, "authorities will need to rely more on supervisory judgment in assessing the global systemic importance" of any identified entities. The "national authority or authorities" will conduct such as assessment and provide to the IOG a confidential "narrative assessment" and recommendation as to whether any entity identified should be designated. The IOG may follow up with the "national authority or authorities" with questions or comments. The "national authority or authorities" will consider the feedback from the IOG and communicate a preliminary determination to the IOG (including the reasons for non-designation should that be the case). Under the framework adopted by the FSB and endorsed by the G-20 leaders in November 2010, the FSB and the national authorities together will determine the final list of designated non-bank, non-insurer financial entities.

3. What will be the formal way for the National Authority to agree to any determinations by the FSB to designate any asset managers?

Response: Under the framework adopted by the FSB and endorsed by the G-20 leaders in November 2010, the "national authority or authorities" together with the FSB will determine the final list of designated entities.

Examination of Advisers to Private Funds

It was recently reported that the SEC Office of Compliance, Inspections, and Examinations (OCIE) has determined that private equity funds are charging inappropriate fees and expenses to their clients. While I do not condone the any inappropriate charging of fees, I question whether using valuable and limited SEC staff resources to examine private equity funds that cater to more sophisticated and wealthier investors instead of examining additional uninspected investors advisers with a largely retail investor client base is appropriate.

1. Can you please provide me the hours and money spent on the investigations and examinations that uncovered the concerns surrounding fees and expenses being charge by private equity funds?

Response: While the SEC staff does not track examination information in the format that you have requested, it does compile the number of "presence exams" of private equity

advisers. Since October 2012, OCIE has completed approximately 150 "presence exams" of private equity advisers, representing approximately 10% of the 1,500 examinations of all advisers conducted over that period. The presence exams of private equity advisers generally have been more narrowly focused and used fewer resources than other adviser exams.

OCIE has also observed that private equity advisers provide advice to a wide spectrum of investors. The Private Equity Growth Capital Council, an industry organization, has stated, "Private equity investment provides financial security for millions of Americans from all walks of life. The biggest investors in private equity include public and private pension funds, endowments and foundations, which account for 64% of all investment in private equity in 2012." Thus, to the extent private equity advisers are engaged in improper conduct, it could potentially adversely affect the retirement savings of many Americans beyond the wealthy individuals who are generally viewed as making private equity investments.

2. Using that information, can you please share with me how many additional investor advisers your examination staff would have been able to examine and investigate had those resources been used on that instead?

Response: Due to the many variables that impact the time and length of examinations, the staff cannot determine the number of additional advisers OCIE would have been able to examine if it did not examine advisers to private equity funds. Among the many items that impact the length of a particular examination are the type and scope of the examination, the size and complexity of the firm being examined, and the risk factors present at each particular firm. While examinations conducted are risk-based, some are very focused on just one or two high-risk areas (*e.g.*, presence exams) and others may focus on a host of higher risk areas (*e.g.*, risk priority exams). This scoping has a significant impact on the time needed to conduct an examination.

As noted above, many of the examinations of advisers to private equity funds were conducted as presence exams, which are designed to be more targeted than typical risk priority examinations. Presence exams generally take less time than standard risk-based exams. If the examination resources used to examine the advisers to private equity funds were redirected elsewhere, that staff likely would have conducted examinations of advisers with similar risk profiles. The scope of such exams and time needed to conduct these reviews would be entirely dependent on the specific facts and circumstances of each exam.

Derivatives

In the SEC's 2012 guidance memorandum outlining a new approach to cost-benefit analysis, the SEC affirmed that "high-quality economic analysis is an essential part of SEC rulemaking" and that the SEC "has long recognized that a rule's potential benefits and costs should be considered."

I would like a better understanding on the way in which the SEC may be applying the cost-benefit analysis to the SEC's proposal of rules governing cross-border security-based swap activities. I understand that these rules, in their proposed form, would apply to security-based swap activities transacted between two non-U.S. entities if such activities are conducted within the United States.

1. Would you be able to advise the Committee about the benefits of applying the SEC's security-based swap regulatory regime in this context?

Response: As part of the SEC's cross-border proposing release in May 2013, the SEC proposed to apply certain Title VII requirements to transactions between two non-U.S. persons that involve conduct within the United States by one or both counterparties to the transaction. The SEC proposed this requirement in order to address a number of economic and regulatory concerns.

First, consistent with our statutory obligations to consider the effects of our rules on competition, efficiency, and capital formation, the SEC considered the potential impact of disparate regulatory treatment where the scope of regulation depends on whether a non-U.S. person counterparty is dealing with a non-U.S. person or U.S. person, both of whose operations are located in the United States. For example, the SEC's proposing release suggests that this disparity could result in fragmented markets by potentially making it more difficult for U.S. firms to access liquidity from non-U.S. counterparties.

Second, the proposed approach was designed to ensure that market participants engaging in security-based swap activity through operations in the United States would be subject to appropriate regulatory requirements. For example, our experience with our anti-fraud and anti-manipulation authority before the Dodd-Frank Act underscored the importance of, among other things, having prompt access to books and records in order to maintain fair, orderly, and efficient markets. The proposed conduct approach sought to ensure that access, thereby facilitating our ability to police U.S. markets for fraudulent and manipulative behavior.

Although the SEC adopted rules governing the application of the security-based swap dealer and major security-based swap participant definitions in the cross-border context in June 2014, the SEC did not adopt the element of the proposal that would have required dealing transactions between two non-U.S. persons to be counted for purposes of the dealer *de minimis* thresholds if the security-based swap transaction is a "transaction conducted within the United States." Instead, in light of the complex and important issues raised by the proposed requirement, including those you raise, the SEC anticipates soliciting additional comment regarding when a transaction between two non-U.S. persons should be included in the relevant *de minimis* thresholds when one or both counterparties are engaged in security-based swap activity within the United States.

2. Is the Commission actively considering the possibility that one potential outcome is that

non-U.S. institutions would move high-paying US jobs abroad to stay outside of the SEC's conduct based security-based swap rules and that is potentially already happening?"

Response: In our cross-border proposal and in subsequent evaluation of comments and interactions with market participants, the SEC carefully considered the potential impact of our proposed regime, including the possibility that certain market participants may restructure their business operations, including by moving some or all of their operations (or agents that transact on their behalf) outside the United States. In our cross-border proposal, we sought comment on a wide range of issues related specifically to the proposed conduct-based application of Title VII.

The SEC received several comments in response, including comments relating to the possibility that firms would restructure their business or move personnel overseas in response to the proposal. As noted above, the cross-border rules recently adopted by the Commission did not include this aspect of the cross-border proposal but rather indicated that the Commission's intent is to seek further comment on this issue.

3. You have mentioned in previous statements that the SEC will focus this year on finalizing the rules for securities-based swaps under Title VII of the Dodd-Frank Act. What is the SEC's timeline for finalizing these rules?

Response: I expect the next steps to be the adoption of regulatory reporting and post-trade public transparency for security-based swaps. The SEC will also consider the application of mandatory clearing requirements to single-name credit default swaps, starting with those that were first cleared prior to the enactment of the Dodd-Frank Act. Our overall goal at this point is to move as quickly as possible to get the substantive rules, along with relevant cross-border guidance relating to those rules, in place.

To date, the Commission has proposed all of the rules required to implement the new regulatory regime for derivatives under Title VII and has begun the process of adopting these rules. Most recently, with the cross-border rules adopted in June 2014, the SEC completed regulations regarding application of the security-based swap dealer and major security-based swap participant definitions in the cross-border context. These final rules include definitions of several key terms are necessary to the application of Title VII in the cross-border context, including the definition of "U.S. person."

Given the global nature of the market for OTC derivatives, these final rules were a necessary foundational step in the SEC's implementation of Title VII. Because of the importance and complexity of the overall framework of Title VII, the SEC took the time to adopt rules via the full notice and comment process, and engaged in time-intensive and critical economic analysis. Having adopted these initial cross-border rules, the SEC has now turned to consideration of the cross-border application of the substantive requirements imposed by Title VII in conjunction with the final rules that will implement those requirements.

4. The SEC has also committed to thoughtful implementation sequencing and phasing in of the new requirements. Would you please share your current thoughts on this important element of minimizing market disruption?

Response: The Dodd-Frank Act directs the Commission to create and implement a new regime for the vast, global market for security-based swaps that developed over many years. Earlier in the process, the Commission released a Title VII implementation policy statement setting out the Commission's views on how it would sequence the rules required by Title VII and requesting comment. The aim of this sequencing release was to prevent the disruption and cost that could result if the rules adopted under Title VII were to go into effect simultaneously or in a haphazard fashion and to give security-based swap market participants clarity as to how the Commission, in general, is seeking to order the compliance dates of these rules.

The SEC remains committed to implementing these important reforms while avoiding unnecessary implementation costs to the security-based swap markets. This commitment informed the SEC's decision to adopt an initial set of cross-border rules addressing the application of the security-based swap dealer and major security-based swap participant definitions rather than a comprehensive set of cross-border rules addressing the full range of issues that were addressed in our proposal. This approach allows the SEC to consider the cross-border aspects of each rule in the context of the related substantive rule, and to provide market participants with a comprehensive guide to "domestic" and cross-border requirements in a particular area before requiring compliance, which should help reduce implementation costs versus a piecemeal approach to implementation.

A key principle articulated in the implementation policy statement was that persons and entities regulated pursuant to Title VII must be given adequate time to come into full compliance with the final rules applicable to them, which includes having an appropriate amount of time to properly understand the rules and prepare themselves to comply with the new requirements arising from those rules. Therefore, those subject to the new regulatory requirements must be given a reasonable, but not excessive, amount of time to come into compliance with the new rules applicable to security-based swaps. This view continues to inform our process.

The implementation policy statement proposed that, following the adoption of definitional rules (*i.e.*, rules further defining the terms "security-based swap," "security-based swap agreement," and "mixed swap" and the rules further defining "security-based swap dealer," and "major security-based swap participant") and the proposal of cross-border rules, the registration of swap data repositories and the reporting of security-based swap data should be the next step in implementation. I continue to believe that those rules are the next logical step, and we are working diligently towards adopting those rules.

5. As you are aware, the CFTC has mostly completed their rulemakings which are currently being implemented across the industry, and rulemaking in major foreign jurisdictions is also well underway. For market participants, including end users who use OTC derivatives for

crucial risk management purposes, it will be important that the SEC and CFTC's rules are coordinated and will not be in conflict with each other. Is the SEC prioritizing the workability of its regime with that of the CFTC?

<u>**Response:**</u> Since the Dodd-Frank Act was passed in July 2010, the staffs of the SEC and the CFTC have consulted and coordinated with each other regularly in the development and implementation of our respective rules. The objective has been to establish consistent and comparable requirements. However, there are differences in some of the agencies' proposed rules, and in the agencies' recently adopted cross-border rules. In certain areas, it may be appropriate for the Dodd-Frank Act's application to security-based swaps to be different from its application to the swaps that will be regulated by the CFTC, as the relevant products, entities, and markets themselves are different, or because the relevant statutory provisions are different. Given this, differing approaches to the regulation of swaps and security-based swaps may be warranted in some instances.

Nevertheless, the Commission is mindful of the costs associated with having different sets of rules, and will be sensitive to those burdens as we move to adoption in various areas. For example, since 2010 we and the CFTC have discussed and compared our respective approaches to the registration and regulation of foreign entities engaged in cross-border swap and security-based swap transactions involving U.S. persons to determine where those approaches converge and diverge. The results are reflected in the final cross-border rules and interpretive guidance we adopted in June, which brought the Commission's cross-border framework to the same place as the CFTC in key respects. I believe the Commission's approach represents a careful balancing of the regulatory goals of Title VII, the practical needs of market participants, and workability with the existing CFTC regime.

Credit Rating Agencies

Chair White, in 2011, pursuant to Dodd-Frank, the SEC proposed an extensive and demanding set of new regulatory requirements for the credit rating industry. The proposed rules, when adopted, will supplement the robust regulatory regime that the SEC has implemented under the Credit Rating Agency Reform Act of 2006.

The SEC should be commended for having taken a very deliberate approach to regulating the credit rating industry. I commend the Commission for moving forward on proposals to remove the references to NRSRO's from its regulation. This was an important bipartisan reform contained in Dodd-Frank that seeks to address core issue surrounding the role that ratings played in the financial crisis, namely the overreliance by investors on a rating because of the requirement in federal regulation and statute.

Notwithstanding this important progress, I think it is time for the SEC to finalize, in a sensible way supported by rigorous cost-benefit analysis, the Dodd-Frank rulemaking that it initiated in 2011. However, I would like to reiterate my concerns about moving forward on the government assignment system for ratings under Section 939F of Dodd-Frank. In my view, such an assignment system would be contradictory to detangling the government

from the ratings process and reducing investor overreliance on ratings.

1. Can you describe the steps that the SEC has taken since 2009 to further regulate and oversee the credit rating industry?

__**Response:**__ The Credit Rating Agency Reform Act of 2006 (the "CRA Reform Act") provided the Commission with explicit oversight authority over credit rating agencies registered as nationally recognized statistical rating organizations, or NRSROs. Thereafter, in 2007 and 2009, the Commission adopted rules that require NRSROs to, among other things, publish information about their activities, make and maintain certain records, file annual reports with the Commission, and establish and enforce procedures to manage conflicts of interest. The rules also prohibit NRSROs from having certain conflicts of interest and from engaging in unfair, coercive, and abusive practices.

Pursuant to the CRA Reform Act, the Commission publishes an Annual Report to Congress on NRSROs that identifies applicants for registration as NRSROs, specifies the actions taken on such applications, and specifies the views of the Commission on the state of competition, transparency, and conflicts of interest among NRSROs. The fifth annual report was published in December 2013.

The Dodd-Frank Act expanded the Commission's NRSRO oversight authority and required the Commission to establish an Office of Credit Ratings, with the Director of the office reporting to the Chair of the SEC. The Office of Credit Ratings was established in June 2012 with the hiring of its Director. The office monitors the activities and conducts examinations of NRSROs to assess and promote compliance with statutory and Commission requirements. The office is staffed with examiners, attorneys, and accountants with expertise in structured finance, corporate finance, municipal finance, financial institutions, insurance companies, and credit rating agencies.

The Dodd-Frank Act mandated annual examinations of each NRSRO, covering eight specified review areas. The results of these examinations are made available to the public in an annual report that summarizes the essential findings and indicates whether the NRSROs have appropriately addressed the recommendations contained in prior reports. Commission staff completed the third cycle of the examinations and in December 2013 issued the third annual report. The fourth cycle of the examinations currently is underway.

The Dodd-Frank Act also required that the SEC undertake several studies related to the credit rating industry. All of the studies are completed and the related reports have been published as follows:

- Report to Congress on Review of Reliance on Credit Ratings, as required by section 939A(c) of the Dodd-Frank Act, July 2011;
- Report to Congress on Credit Ratings Standardization Study, as required by section 939(h) of the Dodd-Frank Act, September 2012;

- Report to Congress on Assigned Credit Ratings, as required by section 939F of the Dodd-Frank Act, December 2012; and

- Report to Congress on Credit Rating Agency Independence Study, as required by section 939C of the Dodd-Frank Act, November 2013.

In addition, The Dodd-Frank Act mandated a number of rulemakings to enhance the regulation, accountability and transparency of NRSROs. The Commission began the process of implementing these mandates with the adoption of Exchange Act Rule 17g-7 in January 2011, requiring NRSROs to provide a description of the representations, warranties and enforcement mechanisms available to investors in an offering of asset-backed securities as well as how those representations, warranties and enforcement mechanisms differ from those of similar offerings.

Most recently, on August 27, 2014, the Commission completed its required rulemakings for NRSROs by adopting rules requiring NRSROs to, among other things: (1) report on internal controls; (2) protect against potential conflicts of interest; (3) establish professional standards for credit analysts; (4) publicly provide – along with the publication of a credit rating – disclosure about the credit rating and the methodology used to determine it; and (5) enhance their public disclosures about the performance of their credit ratings. These rules create an extensive framework of robust reforms and will significantly strengthen the governance of NRSROs. The reforms will also significantly enhance the transparency of NRSRO activities and thereby promote greater scrutiny and accountability of NRSROs. Together, this package of reforms should improve the overall quality of NRSRO credit ratings and protect against the re-emergence of practices that contributed to the recent financial crisis.

The Dodd-Frank Act also required the SEC, to the extent applicable, to review its regulations that require use of credit ratings as an assessment of the credit-worthiness of a security, remove these references, and replace them with appropriate standards of credit-worthiness. The Commission has adopted final amendments that remove references to credit ratings from most of its rules and forms that contained such references, including rules adopted in December 2013 removing references to credit ratings in certain provisions applicable to investment companies and broker-dealers, and in August 2014 new requirements to replace the credit rating references in shelf eligibility criteria for asset-backed security offerings with new shelf eligibility criteria. In addition, in July 2014, the Commission re-proposed to remove credit rating references from rule 2a-7, the rule that governs money market funds, and the comment period on that re-proposal ended October 14, 2014. I expect that the Commission will consider final amendments removing credit rating references from rule 2a-7 in the near future.

2. Can you describe the additional regulation and SEC oversight that the 2011 proposal would, if adopted, bring to the credit rating industry?

Response: As discussed above, the rules adopted in August 2014 aim to improve the governance and management of NRSROs by requiring them to, among other things, (1) report on internal controls; (2) protect against potential conflicts of interest; (3) establish professional standards for credit analysts; (4) publicly provide – along with the publication of a credit rating – disclosure about the credit rating and the methodology used to determine it; and (5) enhance their public disclosures about the performance of their credit ratings.

3. You have mentioned previously that finalizing the rulemaking that the SEC proposed in 2011 is one of your priorities. Will you reaffirm that finalizing this particular rulemaking remains a priority? Can you give us an estimated time by which this rulemaking will be finalized?

Response: Finalizing these rules was an important priority, and the Commission finalized these rules on August 27, 2014.

Enforcement

On July 13, 2008, the Securities and Exchange Commission (SEC) announced that the SEC and other securities regulators will immediately conduct examinations aimed at the prevention of the intentional spread of false information intended to manipulate securities prices. The SEC's announcement stated the examinations were to be conducted by the SEC's Office of Compliance Inspections and Examinations, as well as the Financial Industry Regulatory Authority (FINRA) and New York Stock Exchange Regulation. Understanding that these examinations would be fact-intensive and potentially lengthy examinations, it has been almost six years since the SEC announced the examination.

1. How many examinations did the SEC, FINRA and NYSE Regulation complete?

2. What were the results of these examinations?

3. Did the SEC, FINRA or NYSE Regulation file one or more enforcement actions against any entities or individuals that engaged in the intentional spreading of false information? If yes, please provide the specifics of these enforcement actions and the results of the action. If no, please provide the reasons that the SEC, FINRA and NYSE Regulation did not file any enforcement actions?

Response to Questions 1-3: SEC staff has informed me that in August 2008, the SEC's Office of Compliance Inspections and Examinations (OCIE), in conjunction with FINRA's Market Regulation Department and NYSE Regulation's Market Surveillance Division (collectively the SROs), conducted approximately 40 investment adviser or broker-dealer examinations, which generally were closed by or before February 2010, related to the topic you identified. In 2009, OCIE and the SROs conducted follow-up inquiries reviewing changes initiated by certain of the firms as a result of the original examinations in 2008.

Consistent with Commission policy, the results of these limited scope examinations

conducted by SEC staff are non-public. Generally speaking, however, examinations that do not identify significant violations nevertheless often result in enhancements by firms to their policies, procedures, or systems subsequent to the examinations.

Securities Investor Protection Corporation

Will you please provide all related documents, emails, or other types of communications (drafts or otherwise) from the years of 2009 to 2011 between the Madoff Trustee, the Securities and Investor Protection Corporation and the SEC's General Counsel's office as it relates to deliberations and discussions as to the specific Net Investment Method (NIM) that would be used to determine victims' eligibility for restitution in the Madoff liquidation?

Response: I understand SEC staff has discussed production of these documents with your staff and relayed the process by which they may be requested by the Committee.

Securities Class Action Opt-Outs by Issuers

As you are aware, in securities class actions payments to the injured class generally come from innocent shareholders, and are subject to substantial attorneys' fees that reduce any recovery. Further, many investors that hold a diversified portfolio of securities will be on the plaintiffs' side of some securities class actions, and on the defendant's side in others; as a result, any purported financial benefits to diversified institutional investors are often cancelled out in the long-run.

The deterrent effect of securities class actions on managerial misconduct is debatable and, at a minimum, diluted, as innocent investors pay the vast majority of any settlements. A recent study by Navigant Consulting found that securities class actions are a net cost to investors.[1] It found that investors lose an average of $39 billion per year as a result of collateral damage to their investments from the filing of a case against the firm in which they are invested. When measured against the average investor recovery of $5 billion per year, investors are estimated to lose, on net, $34 billion in value per year as a result of the securities class action system.

Nevertheless plaintiff attorneys receive a net windfall of an average of $1 billion per year from filing these cases.[2] When considered in this context, it is not surprising that issuers and shareholders both may seek to avoid this form of civil liability. It is also not surprising that interest groups associated with the securities class action trial bar would place pressure on the Commission to support the existing system.

[1] U.S. Chamber Institute for Legal Reform, *Economic Consequences - The Real Costs of U.S. Securities Class Action Litigation* p. 3 (February 2014) *available at* http://www.instituteforlegalreform.com/uploads/sites/1/EconomicConsequences_Web.pdf
[2] *Id.*

In early 2012, Carlyle Group LP ("Carlyle"), as part of a public offering, sought to include a provision in its organizational documents that would prohibit shareholders from filing securities class action lawsuits against it.

In response to Carlyle's attempt to prohibit its shareholders from filing securities class actions, in a letter dated February 3, 2012, Senators Al Franken, Richard Blumenthal and Robert Menendez opposed Carlyle's securities class action provision and "urged the SEC to deny the acceleration of registration statements that would unlawfully deprive investors of their ability to vindicate their statutory rights through inclusion of provisions requiring individual, confidential arbitration of all shareholder disputes."

The Senators endorsed an argument put forward by the Commission in 1990 that the provision would violate Section 29(a) of the Securities Exchange Act of 1934, which provides that "any condition, stipulation, or provision binding any person to waive compliance with any provision of this title or of any rule or regulation thereunder, or of any rule of a self-regulatory organization, shall be void."

That argument ignores the fact that the right to participate in a private securities class action was not created nor intended by the drafters of the Securities Exchange Act of 1934. The Supreme Court has endorsed this statutory interpretation of the Exchange Act, as the majority opinion in *Blue Chip Stamps*, authored by former Chief Justice Rehnquist, held that in the context of the private right of action under 10(b) and Rule 10b-5, "[t]he courts already have inferred a private cause of action that was not authorized by the legislation."[3] The Securities Exchange Act does not provide for a right to join a securities class action, and thus a waiver of that right is thus clearly not prohibited by Section 29(a).

I am troubled that the Commission pressured an issuer to remove a provision in its organizational documents that by all indications was clearly permitted by federal and state law. In a staff letter to the Carlyle Group, Assistant Director Pamela Long wrote:[4]

> ***We note that you have amended your limited partnership agreement to require individual arbitration of any disputes relating to the agreement or the common units, including disputes arising under the federal securities laws. We have also reviewed the supplemental information counsel provided to us regarding this issue. In a phone call on February 1, 2012, we advised counsel that the Division of Corporation Finance does not anticipate that it will exercise its delegated authority to accelerate the effective date of your registration statement if your limited partnership agreement includes such a provision, so that the Commission would need to make any decision on a request for acceleration. Based on an article published today by Bloomberg, we understand that you have announced that you have decided to withdraw the proposed arbitration provision. Please***

[3] *See* Blue Chip Stamps v. Manor Drug Stores, 421 U.S. 723, 759 (1975)

[4] Letter from Pamela Long, Assistant Director, Division of Corporation Finance, Sec. & Exch. Comm'n, to Jeffrey Ferguson, General Counsel, The Carlyle Group L.P. (February 3, 2012) *available at* https://www.sec.gov/Archives/edgar/data/1527166/000000000012006433/filename1.pdf

confirm to us whether you intend to amend your limited partnership agreement to remove the mandatory individual arbitration provision.

I can find no reasonable basis for the Commission to continue to restrict issuers from including such provisions or for the Division of Corporation Finance to fail to utilize its delegated authority to accelerate the effective date of a registration statement on the grounds that the organizational documents of an issuer contains a provision prohibiting investors from joining or bringing a securities class action claim against the issuer.

Similarly, I can find no support for the proposition contained in a letter from the Commission's Office of Chief Counsel, Division of Corporation Finance asserting that a shareholder proposal to institute a similar provision into Pfizer's bylaws may be excluded from the corporate ballot on the grounds that "implementation of the proposal would cause the company to violate the federal securities laws."[5]

Accordingly, I request that you answer each of the following questions individually and provide the requested documents:

1. Did the Commission or its staff evaluate the legality of the securities class action provision in the Carlyle offering documents? If so, please provide all records, communications and documents relating to that analysis.

<u>**Response:**</u> Yes. As part of its review of Carlyle's registration statement, I understand that staff of the Division of Corporation Finance carefully considered the issue of the legality of the mandatory arbitration provision in Carlyle's organizational documents. I also understand SEC staff has discussed the production of documents with your staff and relayed the process by which they may be requested by the Committee.

2. If the reluctance on the part of the Division of Corporation Finance to accelerate the registration statement's effective date did not stem from uncertainty about the legality of the provision, then what was the reason for that reluctance?

<u>**Response:**</u> The federal securities laws provide a number of specific remedies for investors who purchase securities. Section 14 of the Securities Act provides that "[a]ny condition, stipulation, or provision binding any person acquiring any security to waive compliance with any provision of [the Securities Act]...shall be void." In addition, when deciding whether to exercise its delegated authority to accelerate the effective date of a Securities Act registration statement, the staff of the Division of Corporation Finance is required to specifically consider, among other things, the public interest and the protection of investors.

While it would be inappropriate to discuss individual matters, generally speaking the staff's

[5] Letter from Ted Yu, Senior Special Counsel, Division of Corporation Finance, Sec. & Exch. Comm'n, to Matthew Lepore, Pfizer Inc. (February 22, 2012) *available at* http://www.sec.gov/divisions/corpfin/cf-noaction/14a-8/2012/donaldyuchetich022212-14a8.pdf

evaluation of a registration statement would include a focus on whether provisions of the entity's organizational documents would have effectively forced shareholders to waive important rights granted to them under the Securities Act. This could include considering carefully the degree to which provisions would have interfered with the investor protections afforded by the express private right of action provided in Section 11 of the Securities Act for false and misleading statements contained in registration statements, as well as the deterrent effect on issuer misstatements provided by Section 11 actions. The staff is not able to accelerate the effective date of an entity's registration statement without making the required public interest and investor protection findings.

3. Does any provision in the federal securities laws currently prohibit, or enable the Commission to prohibit, issuers from requiring investors to pursue claims against the issuer through an arbitration proceeding instead of a securities class action?

Response: While there are no provisions in the federal securities laws that expressly prohibit companies from including provisions in their organizational documents that would require mandatory arbitration of any claims arising under these laws, as noted above, the staff's consideration of a provision in the context of a review of registration statements may focus on whether such provisions would adversely affect shareholders' ability to exercise important rights granted to them under the Securities Act and interfere with the investor protections afforded by Section 11 of the Securities Act. Such an analysis would be part of the Division of Corporation Finance's evaluation of whether it is able to make the required public interest and investor protection findings needed to exercise its delegated authority and accelerate the effective date of an issuer's Securities Act registration statement.

4. Please provide an exhaustive description of supporting arguments relevant to the staff's position in a no-action letter regarding a shareholder proposal to include a class action opt-out on the ballot of Pfizer, Inc of February 22, 2012, in which the staff asserted that "We note there appears to be some basis for your view that implementation of the proposal would cause the company to violate the federal securities laws."[6]

Response: Rule 14a-8 of the Securities Act provides shareholders with the opportunity to submit proposals for inclusion in a company's proxy materials for a shareholder meeting. Generally, a company must include the proposals in its proxy materials, unless it is able to demonstrate that a proposal may be excluded pursuant to one of the procedural or substantive bases provided in the rule.

In Pfizer's case, the shareholder proposal would have amended the company's bylaws to prohibit generally any present or former shareholders from bringing any controversies or claims against the company, its directors, or its officers in court and, instead, would have required such persons to arbitrate these controversies or claims.

[6] *Id.*

In seeking "no-action" relief from the staff to omit this proposal from its proxy materials, Pfizer argued that the proposal was excludable under Rule 14a-8(i)(2), which permits omission of a proposal that, if implemented, would cause the company to violate federal law. The staff concluded that Pfizer's request presented some basis for the company's view that the proposal, if implemented, would violate the anti-waiver provisions of the federal securities laws. It is important to recognize that the staff's no-action response reflects an informal, non-binding view as to whether the company has met the burden required under Rule 14a-8 for the staff to not recommend enforcement action if the proposal is excluded from the company's proxy materials.

5. In a letter in August 5, 2011, the SEC conducted an estimate of the cost of staff time in drafting the "proxy access rule."[7] Utilizing the same methodology, please provide an estimate of the cost the Commission has incurred though its participation in private actions by filing amicus briefs over the last five years.

Response: Over the past five years, the Commission itself filed 26 briefs as *amicus curiae* on a variety of issues in private actions in federal district court and federal courts of appeals. For purposes of the requested estimate, we have selected what we believe to be an average case and assumed that the amount of staff time devoted to preparing the brief in that case was spent on the briefs for each of the others, recognizing that because the matters varied somewhat in terms of complexity, some required more staff hours and some fewer. Subject to those limitations, we estimate that over the past five years approximately 4,732 staff hours were spent in preparing the 26 *amicus curiae* filings at an estimated labor cost of approximately $918,580. The labor cost reflects salary as well as other components of the Commission's labor cost, such as healthcare and other benefits, and an allocation of administrative support and overhead cost.

Proxy Advisory Firms

Members of the Securities and Exchange's Investor Advisory Committee have expressed concern about the influence that proxy advisors wield and the preferential regulatory treatment they enjoy. I appreciate that the Commission held a roundtable last year on this issue and continues to consider appropriate reforms.

1. Will you commit to rescind the *Egan-Jones* Staff No Action Letter, provided by the staff in response to a request from Kent S. Hughes on May 27, 2004, pending an interpretive release by the Commission which makes the obligations of proxy advisors clear?

Response: Proxy advisory firms play an important role in the proxy process by, among other things, assisting investors in analyzing and considering how to vote the investors'

[7] *See* Letter from Mary L. Schapiro, Chairman, Sec. & Exch. Comm'n, to Scott Garrett, Representative, U.S. House of Representatives (Aug. 5, 2011).

shares. The proxy process lies at the center of the ongoing and important dialogue between companies and investors. The role of proxy advisory firms, including their use by institutional investors, has been a continuing area of focus at the Commission. In 2010, the Commission issued a comprehensive concept release on the U.S. proxy system that sought comment as to whether the U.S. proxy system as a whole operates with accuracy, reliability, transparency, accountability, and integrity that investors and issuers should expect.

More recently, as you note, the SEC held a roundtable in December 2013 on proxy advisory firm issues, including proxy advisory firms' disclosure of conflicts of interest and the use of proxy advisory firms by institutional managers, among other things. I believe that the roundtable discussion was very productive and provided a variety of perspectives, including those of proxy advisory firms, investors, corporate issuers, and institutional managers.

Following the roundtable, in June 2014, the Division of Investment Management and the Division of Corporation Finance issued Staff Legal Bulletin No. 20 to provide guidance about proxy voting responsibilities of investment advisers and the availability of exemptions from the proxy rules for proxy advisory firms. The Staff Legal Bulletin provides guidance about investment advisers' responsibilities in voting client proxies and retaining proxy advisory firms. It also provides guidance on the availability and requirements of two exemptions to the federal proxy rules that often are relied upon by proxy advisory firms, and clarifies that advisers and their clients do not have to agree that the adviser vote all of the client's proxies. In particular, the Staff Legal Bulletin cites to the staff's Egan-Jones letter for two reasons: to describe an investment adviser's duties when retaining or continuing to retain any particular proxy advisory firm to provide proxy voting recommendations, and to demonstrate that investment advisers should establish and implement measures reasonably designed to identify and address the proxy advisory firm's conflicts that can arise on an ongoing basis. There are no plans to rescind the letter.

2. Have you consulted with the Department of Labor to determine in what instances the use of proxy advisors, who can become conflicted when they receive consulting fees from the issuers about whom they are advising ERISA fiduciaries concerning their investments in the issuers, may expose institutional investors regulated under ERISA to fiduciary liability? Will you conduct a similar inquiry with respect to regulated mutual funds?

Response: The DOL's rules apply to the voting of proxies held in employee benefit investment portfolios by fiduciaries in accordance with ERISA. As such, the rules applicable to registered investment advisers (which may include certain institutional investors), under the Investment Advisers Act of 1940, are different. Therefore, the staff has not consulted with the DOL with respect to how the DOL's regulations affect ERISA fiduciaries.

3. Are mutual funds currently free to adopt a policy that actively voting shares is not cost-effective, and instead to adopt a policy of voting with the recommendation of company

management unless red flags suggest a need for further attention? If there is any ambiguity in the Commission staff's current interpretations of its rules, will you commit to clear up that ambiguity?

> **Response:** As the Commission stated in 2003 when it adopted requirements regarding proxy voting by open-end and closed-end funds, proxy voting decisions by funds can play an important role in maximizing the value of the funds' investments, thereby having an enormous impact on the financial livelihood of millions of Americans.
>
> Mutual funds are formed as corporations or business trusts under state law and, as in the case of other corporations and trusts, must be operated for the benefit of their shareholders. Because a mutual fund is the beneficial owner of its portfolio securities, the fund's board of directors, acting on the fund's behalf, has the right and the obligation to vote proxies relating to the fund's portfolio securities. Boards generally delegate this function to the fund's investment adviser as part of the adviser's general management of fund assets, subject to the board's continuing oversight. The investment adviser to a mutual fund is a fiduciary that owes the fund a duty of "utmost good faith, and full and fair disclosure." This fiduciary duty extends to all functions undertaken on the fund's behalf, including the voting of proxies relating to the fund's portfolio securities. An investment adviser voting proxies on behalf of a fund, therefore, must do so in a manner consistent with the best interests of the fund and its shareholders.

Cost-Benefit Economic Analysis

Chair White, during your Senate confirmation hearing, you testified that improving the SEC's economic analysis function was one of your top three priorities, and you noted "the SEC should seek to assess, from the outset, the economic impacts of its contemplated rulemaking. Such transparent and robust analysis, including consideration of the costs and benefits, will help ensure that effective and optimal solutions are achieved without unnecessary burdens or competitive harm."

I share your concern that this priority has received insufficient attention at the Commission. I believe this problem stems from the fact that the Division of Economic and Risk Analysis, unlike the other operating divisions of the Commission, is not delegated any meaningful authority in the Commission's operating rules.

A meaningful step in the right direction would be to place for a vote by the Commission a proposal to add the following language to Section 200.23a of the Commission's internal operating rules:

> **"The Office of Economic Analysis shall be led by the Director of Economic and Risk Analysis. The Office may suspend any authority delegated to auy staff of the Commission with respect to a particular matter upou a finding that the Director cannot determine that the benefits of the action exceed its costs. In that instance, the Director shall submit an analysis of the decision**

to the Commission. In that instance, the delegated authority will remain suspended with respect to that particular matter until such time as it is renewed by an act of the Commission."

Will you commit to putting that rule amendment to a Commission vote?

Response: As you note, I am committed to supporting and strengthening our Division of Economic and Risk Analysis (DERA), which has been the Commission's most rapidly growing division. DERA's expansion has greatly enhanced the Commission's ability to perform high-quality economic analysis in support of rulemaking and policy development. Importantly, DERA staff also routinely contributes substantively to a broad range of other Commission initiatives and activities, such as assisting with enforcement actions and developing risk assessment tools and metrics to help focus scarce resources on investigations and examinations.

I would not, however, support the above rule amendment. While it is critical that SEC staff exercising delegated authority consult and coordinate as appropriate with all other relevant divisions and offices, including DERA, the Commission has determined that the SEC staff in receipt of delegated authority is qualified and equipped to exercise it. As such, vesting any one division or office with the plenary authority described in the above amendment would in my view not be appropriate or optimal.

<u>Questions for SEC Chair Mary Jo White submitted by Chairman Hensarling</u>

1. How many times has the Volcker Rule inter-agency working group met since you and your fellow regulators announced its creation at our February 5 Full Committee hearing? How many times have the principals of the five agencies met to discuss Volcker Rule implementation?

<u>Response:</u> The full interagency working group holds weekly calls to discuss implementation of the final rule. Separately, a specialized group within the working group also meets regularly to discuss issues related to the metrics reporting requirement. I also have had discussions with principals of the other Volcker Rule agencies to discuss implementation of the rule.

2. Please describe the specific involvement of the Secretary of the Treasury in the deliberations of the Volcker Rule inter-agency working group.

<u>Response:</u> The Dodd-Frank Act provides a coordinating role for the Chairperson of the FSOC (the Secretary of the Treasury) with respect to the rulemaking process. The Department of the Treasury was involved in the regular meetings held by the interagency group and played a coordinating role throughout the rulemaking process. Further, following adoption of the final rule, the Secretary of the Treasury held a meeting of principals to discuss implementation of the rule.

Currently, the interagency working group is an informal working group comprised of staff of the agencies responsible for implementing and enforcing the Volcker Rule. It is a consultative, collaborative body that enables staff from each of the agencies to communicate on a regular basis on questions from market participants, on technical issues, and on supervision and examination approaches.

3. Thank you for responding to my March 11, 2014 letter about the Volcker Rule's impact on the liquidity of the U.S. corporate bond market. When do the five regulators expect to provide the first quarterly report about corporate bond market liquidity and the Volcker Rule? As the SEC is the regulator with the most expertise on corporate bonds, what will the SEC do to modify or alter the Volcker Rule if the agencies determine that liquidity for corporate bonds is decreasing?

<u>Response:</u> In response to your request, we provided an initial report on corporate bond market liquidity on June 26, 2014. As you know, many factors may affect liquidity in the U.S. corporate bond market. The report is intended to set out some historical trends in this market and provide a baseline for monitoring changes in the market. The agencies also provided a subsequent report on November 3, 2014, and I expect will provide further periodic updates of this information in the future. To the extent that the final rule has unintended impacts on banking entities or the U.S. financial system, the agencies would seek to evaluate and, as appropriate, address those impacts within the parameters of the

statute.

4. The extension for CLOs provided by the regulators on April 8, 2014, did not provide any more certainty to the CLO market. Were CLOs created for proprietary trading purposes? If not, for whom were CLOs created?

Response: In light of the Federal Reserve Board of Governors' statement on April 7, 2014 of its intent to extend the conformance period for certain CLOs, and based on the staff's discussions with industry representatives and a review of data provided by market participants, it appears that the current volume of new CLO issuances is higher as compared to CLOs issued prior to the agencies' adoption of final rules implementing the Volcker Rule, with U.S. CLO issuances increasing to a post-crisis high of approximately $12 billion in April 2014, which was the third highest monthly total on record. Consistent with this data, it was recently reported that CLO issuance has increased each month this year, with year-to-date issuance increasing by nearly 29% as compared to the same period of 2013.

A CLO is an asset-backed security that is typically collateralized by portions of tranches of senior, secured commercial loans or similar obligations of borrowers who are of lower credit quality or that do not have a third-party evaluation of the likelihood of timely payment of interest and repayment of principal. CLOs thus generally provide a means for investors to obtain an investment collateralized by these loans or similar obligations. Investment managers form CLOs to provide investors with these investment opportunities. CLOs are managed vehicles for which investment managers receive management fees and performance-based compensation.

5. The five agencies charged with implementing the Volcker Rule took action on April 8 on CLOs but the action did not resolve the uncertainty to a market for business loans and they are a critical part of the capital markets in the United States. A market which came through the crisis without incident, has a default rate of 0.41%, over 20 years, only 25 tranches have defaulted and serves to help finance such companies as J CREW, Delta Airlines, Michael's Craft Stores, Tempurpedic, American Airlines, TXU, Dollar General, and Rite Aid. Did the regulators ignore the facts about the CLO market before taking action that has made this market, a market for business loans, less attractive?

Response: As noted above, following the Federal Reserve Board's action on April 7, the CLO market has expanded to post-crisis highs and, based on public data, the corporate loan market and the CLO market have in fact increased in size after the last year.

Section 619 of the Dodd-Frank Act generally required the agencies to prohibit banking entities from investing in hedge funds and private equity funds, collectively defined as "covered funds" in the agencies' final rules. At the same time, the statute provides that it shall not be construed to limit or restrict the ability of a banking entity or nonbank financial company supervised by the Federal Reserve Board to sell or securitize loans. The agencies gave effect to these statutory provisions by prohibiting banking entities

from investing in covered funds while also excluding from the definition of covered fund certain loan securitizations. In the adopting release, the agencies were careful not to expand the definition of excluded loan securitizations to vehicles holding both loans and securities, noting that such an expansion would not be consistent with the provision of the Dodd-Frank Act that specifically only protected the "sale and securitization of loans" by banking entities. The agencies also noted in the adopting release that excluded loan securitizations that meet the conditions of the rule do not raise the same type of concerns as other types of securitization vehicles that could be used to circumvent the restrictions on proprietary trading.

6. Shortly after the Volcker Rule was approved one Washington, DC attorney stated "The Volcker rule is going to keep a lot of people at this firm occupied for a long time." Given the massive compliance burden and the need for regulators to look over the shoulders of traders to make sure they stay on the right side of the blurred line between prop trading and market-making, there will clearly be more jobs for compliance officers and government regulators. But that is not what most Americans consider sustainable job growth. How will sharply increased borrowing costs and less liquid capital markets translate into fewer job opportunities for those Americans not fortunate enough to have a government regulatory job, a job in the compliance department of a Wall Street bank or for one of their lawyers?

Response: The final Volcker rule includes workable exemptions for market making and underwriting activities, which should reduce the potential for increased borrowing costs or less liquid capital markets. Staffs of the agencies are monitoring liquidity in the corporate bond market and expect to provide periodic updates of their findings to the Committee. To the extent that the final rule has unintended impacts on banking entities or the U.S. financial system, the agencies would seek to evaluate and, as appropriate, address those impacts within the parameters of the statute.

7. With respect to the apparent liquidity crunch occurring in the corporate bond market, Professor Andrew Lo of MIT noted "Corporates face the risk of higher borrowing costs if liquidity continues declining." Given that part of the SEC's mission is to facilitate capital formation, isn't it incumbent upon the SEC to conduct a comprehensive analysis of the Volcker Rule's impact on the ability of businesses to issue debt through the U.S. markets?

Response: Because banking entities are not required to comply with the trading restrictions of the final Volcker rule until July 21, 2015, it is too soon to determine whether the rule will impact liquidity in the corporate bond market. Notably, the rule provides exemptions for activities that are core to the functioning of this market, including underwriting and market making-related activities, and does not impact trading by firms that are not banking entities. We have provided two staff reports on corporate bond market liquidity and will continue to monitor liquidity in the corporate bond market.

8. During our first Volcker Rule hearing in January, one of our witnesses stated, "There

are five enforcers [of the Volcker rule], and maybe six if you add FINRA to the mix, which I think ultimately the SEC will look to FINRA to do." As many bank holding companies conduct much of their trading in SEC-regulated entities, do you see your agency as taking the lead in terms of implementation and enforcement of the Volcker Rule?

> **Response:** Within the United States, securities underwriting and market making activities generally are conducted in SEC-registered broker-dealers. In this regard, the SEC will have a significant role to play in implementing the Volcker Rule and examining for compliance with these provisions of the final rule. At the same time, the Volcker Rule's application is not limited to U.S. securities markets, as it applies to markets for commodity futures and derivatives, as well as U.S. banking entities' trading activities in foreign markets. Further, banking organizations tend to structure their activities based on operational functionality rather than legal status, as recognized by the final rule's definition of "trading desk." Thus, a banking organization's activities often span more than one legal entity. For example, a trading desk that makes a market in corporate bonds may book its corporate bond positions in an SEC-registered broker-dealer and may book index CDS positions acquired for hedging purposes in a different banking entity that has a different primary regulatory authority. As a result, the SEC is coordinating implementation of the final rule with the other rulemaking agencies through a consultative, collaborative process.

9. Some have argued that the banking regulators, by virtue of prudential regulations, statutory confidentiality protections and the presence of embedded bank examiners, have more discretion and flexibility concerning whether and how to enforce the Volcker Rule compared to the SEC, which because of its rule-based regulations cannot simply decline to report Volcker Rule violations when it sees fit. Do you agree with this critique? If you disagree with this critique, do you believe the SEC has the authority to waive clear violations of the Volcker Rule? If so, how would this work in practice? What criteria would you and your fellow Commissioner use to make this determination?

> **Response:** Section 13(e)(2) of the Bank Holding Company Act (BHC Act) mandates that each agency enforce compliance of section 13 with respect to a banking entity under the respective agency's jurisdiction. Accordingly, the final rule provides each agency with the authority to take any action permitted by law to enforce compliance with section 13 or the final rule, including ordering a banking entity to terminate activities or investments that violate the rule. The banking agencies also retain inherent authority to conduct examinations or otherwise inspect banking entities to ensure compliance with the final rule.
>
> At the Commission, the Office of Compliance Inspections and Examinations (OCIE) promotes compliance with the federal securities laws through outreach, publications, and examinations, and where appropriate, referrals to the Commission's Division of Enforcement for consideration of further action against the entity. During inspections and examinations, OCIE staff will assess compliance with regulatory requirements based on a risk-based selection process. An examination may include an on-site visit.

interviews with appropriate personnel, and document reviews, in order to analyze the relevant portion of the entity's operations.

Following the end of the conformance period, if examiners identify potential failures by a regulated banking entity to comply with the Volcker Rule or section 13 of the BHC Act, examiners will confer with other SEC staff concerning the application of the requirements to the banking entity's activities. SEC staff will then consider appropriate next steps, including coordinating with the interagency group. A violation may result in an examination summary letter being issued to the registrant that identifies the non-compliant activities and requires that the registrant identify what actions it will take to address the concerns identified. Where the violations found are serious, SEC staff will consider additional actions, which may include a referral of the matter to the Division of Enforcement for their consideration as to appropriate action.

10. The firms that were subject to oversight by the SEC under the now-shuttered Consolidated Supervised Entities (CSE) program had onsite SEC examiners reviewing their trading and other activities in the run-up to the crisis. Did any SEC examiners embedded in one of those CSE firms identify proprietary trading or investments in hedge funds or private equity funds as a concern?

Response: The CSE program was a voluntary Commission program that involved actively monitoring certain large investment bank holding companies that were not otherwise subject to regulatory supervision. One of the primary purposes of the program was to monitor the financial and operational condition of the holding company and its potential impact on the registered broker-dealer, and to verify that the risk control system was functioning effectively.

Commission staff members monitoring CSE firms were not embedded at the firms. Instead, a multi-disciplinary team of Commission staff, including economists, financial engineers, and accountants, met regularly with senior risk managers, financial controllers, treasury personnel, and internal auditors of the CSE firms to discuss financial and operational issues. A key theme throughout these discussions was risk concentration, and how the control functions collectively managed concentrated exposures of various types. In its review of CSE firms, Commission staff generally focused on firms' risk exposures, rather than the particular type of trading activity giving rise to the risks.

11. Are investors harmed when they cannot buy or sell securities because of illiquid, inefficient or disorderly markets? Does the Volcker Rule have the potential to actually harm investors, particularly those investors invested in fixed income securities?

Response: Liquidity provides important benefits to the financial system, and market makers play an important role in providing and maintaining liquidity throughout market cycles. Further, restrictions on market-making activity can result in reduced liquidity, and the effects of diminished liquidity can be concentrated in markets where trading is

already infrequent, such as the fixed income market. By exempting the market-making related activity of banking entities, the rule recognizes the importance of these activities to the financial system. Certain provisions of the market-making exemption are designed to recognize differences across markets and asset classes by accounting for the liquidity, maturity, and depth of the market for the type of financial instrument in which a market is made. As a result, banking entities will continue to be able to engage in market-making related activities across markets and asset classes.

Questions for Record (QFRs) for "Oversight of the SEC's Agenda, Operations, and FY 2015 Budget Request" April 29, 2014

Rep. Robert Hurt

How would the SEC view a short-seller who allegedly compensates third parties to attack the shorted publicly- traded company, while concealing the payments?

How would the SEC view a short-seller who knowingly puts into the marketplace false and misleading information concerning the shorted company in order to drive down the stock price? Is such conduct unlawful?

Response: The SEC enforces a variety of provisions of the securities laws that may come into play in the context of short sales. Whether certain conduct violates these laws is highly dependent on the facts and circumstances of a particular case. Some of the provisions aimed at addressing abusive short sale practices include: (1) Section 9(a) of the Exchange Act, which contains several provisions prohibiting manipulation of security prices; (2) Section 17(a) of the Securities Act, Section 10(b) of the Exchange Act, and Exchange Act Rule 10b-5, which prohibit fraudulent conduct in connection with the purchase, sale, or offering of securities; (3) Regulation M, which is a set of anti-manipulation rules that govern activities in connection with securities offerings; and (4) Regulation SHO and Exchange Act Rule 10b-21, which are aimed at preventing potentially manipulative or abusive "naked" short selling.

The SEC has brought cases in each of these areas to address problematic short sale conduct. For example, the SEC has charged short sellers with fraud in cases where they are linked to false statements made for the purpose of negatively impacting the price of the shorted stock. In one case, the SEC charged a broker with fraud and manipulation for recklessly spreading false rumors about a company while at the same time profiting from short sales of that company's stock. The SEC also filed fraud charges against a corporate employee who caused the issuance of a false press release so that he could profit from a short position.

In addition to these fraud cases, the SEC has made other types of abusive short selling practices an enforcement priority. For example, last year the SEC announced an initiative to enhance enforcement of Rule 105 of Regulation M, which prohibits firms from improperly participating in public offerings soon after short selling those same stocks. The rule is intended to protect a stock offering from potential manipulation by short sellers who artificially depress market prices and, in the process, guarantee themselves a profit while reducing the company's offering proceeds and diluting shareholder value. The enforcement of Rule 105 promotes offering prices that are set by natural forces rather than manipulative short sale activity. As part of the initiative, we have charged over 40 firms with violations of the rule, resulting in more than $23 million in monetary sanctions. In another case filed earlier this year, the SEC charged two

individuals with fraud and violations of a short sale rule for perpetrating a complex scheme in which they engaged in sham transactions to evade delivering the securities underlying their short positions in over 20 different issuers.

If the SEC was provided evidence of such alleged activities by a short-seller, would the SEC investigate?

Response: Determinations as to whether to open an SEC enforcement investigation turn on the specific facts and circumstances of the particular matter. Every tip, complaint, or referral the SEC receives is carefully reviewed for reliability, detail, and potential violations of the federal securities laws. In determining whether to open an investigation, the staff considers whether it would have the potential to substantively and effectively address the alleged violative conduct. The staff analyzes a variety of threshold issues, including whether the facts suggest a possible violation of the federal securities laws involving fraud or other serious misconduct, the magnitude or nature of the violation including the number of victims, and the amount of profits or losses at issue. The staff may also consider whether there is a need for immediate action to prevent investor harm, whether the alleged conduct undermines the fairness or liquidity of the U.S. securities markets, whether the alleged conduct involves a recidivist, and whether the investigation would involve a possibly widespread industry practice that should be addressed.

Representative Patrick E. Murphy
Questions for the Record
April 29, 2014
"Oversight of the SEC's Agenda, Operations, and FY 2015 Budget Request"

Chair White, releasing the OFR study on asset management for comment gave key stakeholders and academics the opportunity to weigh in.

1. How will these comments be incorporated into the FSOC's continued examination of the asset management industry?

> **Response:** When OFR published its report in September 2013, the Commission provided a place on the Commission's website to collect public responses and comments. Approximately 55 comment letters were submitted on the OFR Study, "Asset Management and Financial Stability." The commenters – which include industry representatives, academics, and public interest groups – provided a variety of views on issues related to the asset management industry and its potential risks.
>
> The comment letters are publicly available on the SEC's website. They can be accessed from the following link: http://www.sec.gov/comments/am-1/am-1.shtml. In addition, SEC staff provided staff of FSOC members with an overview of the comments that were received by the November 1, 2013 comment period closing date. SEC staff continues to review and analyze the various views expressed in these comments as well as in comments submitted more recently.
>
> The public comments provided useful insights on issues related to asset managers and potential systemic risk and have helped inform the overall review of those issues.
>
> The insights and ideas raised in the comment letters have been discussed at FSOC meetings, both at the principal and at the staff level, and the comment letters are informing the work of the Council in its continued examination of the asset management industry.

I recently joined 40 of my colleagues in a letter to Secretary Lew urging the FSOC to perform and publish additional analysis beyond the OFR study before taking steps to designate any asset management firms as systemically important financial institutions (SIFI). I am concerned with recent reports that the FSOC has moved a few asset management firms into stage two of the examination process before the FSOC has determined appropriate risk criteria and publicly explained how any identified risk would be mitigated by designating an asset management firm.

2. I understand the FSOC has scheduled a May 19th public forum on the asset management industry, which is a great first step, but what additional steps will the FSOC

take to perform a robust analysis, seek input from experts to fully understand the industry, and explain why designation of an individual firm or firms would be a better solution for mitigating any identified systemic risk than industry-wide activity-based regulation by the primary regulator?

Response: As you indicated, FSOC held a public Conference on Asset Management on May 19, 2014. The Conference featured three panels titled, "Investment Risk Management by Asset Management Firms," "Asset Management and Risks Across the Broader Financial System," and "Operational Issues and Resolvability" that included industry speakers, academics, and other stakeholders

At the conference, the Director of the Commission's Division of Investment Management presented an "Overview of the Asset Management Industry" to provide background and context. Among other things, the presentation included an overview of the regulatory regime applicable to investment advisers and mutual funds and other SEC-registered investment companies; background on the growth of investment advisers and funds; a description of data availability with respect to investment advisers and funds; background on the use of third-party service providers to perform operational functions; and a summary of how investment advisers operate in the financial markets as agents on behalf of clients.

At a subsequent July 31, 2014 Council meeting, FSOC "directed staff to undertake a more focused analysis of industry-wide products and activities to assess potential risks associated with the asset management industry." I will continue to collaborate with my fellow FSOC financial regulators to help inform FSOC's understanding of the asset management industry and its potential risks.

As a CPA, I was surprised to read that the Financial Accounting Fonndation (FAF) unexpectedly contributed $3 million of fees paid by U.S. public companies to the International Financial Reporting Standards Foundation after consultation with SEC officials. It concerns me to think that SEC would pressure FAF to make this contribution without first consulting this committee and Congress.

3. How will this contribution benefit U.S. companies?

Response: As I indicated at the time of FAF's announcement, I am gratified that the FAF indicated it will provide a substantial contribution to the IFRS Foundation. The contribution is intended to support the IASB during the period that it is completing work on four joint accounting standards projects underway with the FASB. The joint projects involve accounting for revenue recognition, leasing, financial instruments, and insurance. Completing these joint projects will further the goal of convergence of U.S. and international accounting standards, which will benefit companies by promoting increased comparability of their financial reporting with their foreign peers. Under the Commission's rules, foreign private issuers are permitted to file financial statements in accordance with IFRS as issued by the IASB without reconciliation to U.S. GAAP.

Today, over 500 companies, representing trillions of dollars of market capitalization, file reports with the Commission as foreign private issuers using IFRS, availing themselves of this method of reporting. As such, high-quality IFRS standards are critically important to the U.S. markets and American investors.

4. Would allowing U.S. companies the option to use international accounting standards cause confusion for investors and simply create a race to the bottom in terms of accounting standards?

Response: The FASB and IASB have been working together to more closely converge U.S. GAAP and IFRS since 2002. The FASB's ongoing work with the IASB on convergence projects has helped to eliminate many significant differences between U.S. GAAP and IFRS, thereby furthering the objective of a single set of high quality international accounting standards. The Commission continues to monitor the progress of the remaining convergence projects.

As discussed above, over 500 companies, representing trillions of dollars of market capitalization, today file reports with the Commission as foreign private issuers using IFRS.

The Commission has not yet made any determinations as to whether there would be any further incorporation of IFRS into the U.S. financial reporting system. I believe it is important for the Commission to continue to consider the potential benefits and challenges of further incorporating IFRS into the U.S. financial reporting system. The needs of U.S. investors will continue to remain front and center as we think about this issue.

COMMITTEE ON FINANCIAL
SERVICES

Committee on Financial Services

Oversight of the SEC's Agenda, Operations, and FY 2015 Budget Request

May 27, 2014

Rep. Bill Posey (FL-8)

On December 23, 2013, FINRA issned a concept proposal to develop a Comprehensive Automated Risk Data System (a.k.a – CARDS).

CARDS is a far reaching system that will permit FINRA to collect and store, in an automated, standardized format, highly detailed and very specific financial and personal information about retail customers from securities broker-dealers. This information will be collected on a regular basis and will permit FINRA (and potentially the SEC and other regulators) to have a complete picture of an individual person's financial life.

We are concerned about the personal privacy and information security issues raised by the proposed CARDS system. Personal privacy and security of personal information has never been more important. Millions of customers recently had their personal financial information compromised by a data beach at Target.

The CARDS system sounds similar to CFPB programs that collect information regarding every American's entire financial life, and the collection of the this information raises important Constitutional rights and personal privacy issues. In addition, securing such sensitive information from possible security breaches is immensely important.

It is my understanding that FINRA currently maintains various systems, such as InSite, OATS, Blue Sheets, that collect information very similar to that contemplated by CARDS. I also understand that CARDS is being proposed at the same time the Securities and Exchange Commission ("SEC") and the securities industry self-regulatory organizations, including FINRA, are considering a Consolidated Audit Trail ("CAT") that will collect and store vast amounts of financial information similar to the information that a CARDS system will collect. I am concerned that the SEC and FINRA have not considered the cost-benefit aspects of the CARDS proposal, in particular in light of these already existing systems and the proposed CAT system.

Since the SEC is the regulator of FINRA under Section 15A of the Securities Exchange Act of 1934 and is responsible for approving all FINRA rule changes, we would like to know:

1. What does the SEC know about the CARDS system?

Response: In its December 2013 request for comment from its members and others on a concept proposal to develop the Comprehensive Automated Risk Data System (CARDS), FINRA indicated that CARDS is intended to facilitate more focused and streamlined examinations and should reduce requests for information from firms as well as result in shorter on-site examinations.

According to FINRA, CARDS would accomplish these objectives by automating the collection of certain information that is maintained by member firms as part of their books and records. FINRA proposes to use the information collected through CARDS as a surveillance tool to run analytics that should help focus examinations by identifying potential sales practice misconduct as well as potential business conduct problems with member firms, branches, and registered representatives.

The Commission staff understands that FINRA received over 800 comment letters in response to the concept proposal on which it solicited comment. After considering the comments raised by the commenters, on September 30, 2014, FINRA issued a Regulatory Notice seeking comment on a specific proposal to implement CARDS. FINRA's proposal is available at http://www.finra.org/web/groups/industry/@ip/@reg/@notice/documents/notices/p600964.pdf and is subject to a 60-day comment period. Once it prepares a formal submission, FINRA will have to file the proposal with the Commission for review and approval pursuant to Section 19(b) of the Exchange Act.

2. Is the SEC is collaborating with FINRA on CARDS?

Response: The SEC is not collaborating with FINRA in the development of CARDS. FINRA staff has discussed the CARDS concept proposal generally with the staff of the Commission.

3. What are the SEC's and FINRA's positions on the personal privacy and Constitutional rights issues raised by CARDS?

Response: It would be premature for the SEC to express a position on the issues raised by the commenters on the CARDS concept proposal published by FINRA. I expect that FINRA will review and consider any comments received in formulating any proposal that it may consider filing with the Commission. The Commission would then consider whatever concerns are raised by the commenters on the CARDS proposal when and if FINRA files a rule change with the Commission.

4. Will the SEC review and approve the CARDS system prior to FINRA implementing the system?

<u>Response:</u> To establish CARDS, FINRA would have to file a proposed rule change with the Commission pursuant to Section 19(b) of the Securities Exchange Act. FINRA would not be able to implement the system prior to SEC approval of the proposed rule change.

5. Will the CARDS proposal be published in the Federal Register so that all American citizens will have the opportunity to review the proposal and provide comments?

<u>Response:</u> Yes. All proposed rule changes filed pursuant to Section 19(b) of the Securities Exchange Act are published for comment in the Federal Register.

6. Have the SEC and FINRA considered the costs and benefits of the CARDS system and how CARDS relates to already existing SEC and FINRA systems and the proposed CAT system?

<u>Response:</u> FINRA has indicated that it is considering the costs and benefits of CARDS and how the system relates to existing FINRA systems, as well as the proposed CAT system. FINRA has not yet filed a proposed rule change with the SEC that would require formal review and approval by the SEC.

Suggested Questions

Regarding Office of Financial Research Study on Asset Managers and Potential Designation as SIFIs by the Financial Stability Oversight Council:

1. It has been widely reported that the SEC had significant concerns that the OFR report viewed mutual fnnds through a 'bank lens,' even though they operate on a fundamentally different business model from banks. Does the SEC believe the final OFR report eorrected the lens, or is the final study still based on a misguided perspective?

Response: While the Commission did not participate in or take a position on the OFR Asset Manager Study, SEC staff provided comments, technical input and shared expertise with the OFR as OFR drafted and revised the study. Since OFR's publication of the Study, the public has provided input on the issues through comments on the Study, and the FSOC held a conference on asset management, which have added to FSOC's understanding of asset managers and their distinct role in the financial markets.

In addition, at the July 31, 2014 Council meeting, FSOC "directed staff to undertake a more focused analysis of industry-wide products and activities to assess potential risks associated with the asset management industry." As a member of FSOC, I will continue to collaborate with my fellow FSOC financial regulators to help inform FSOC's understanding of the asset management industry and its potential risks.

2. How do leverage ratios indicate riskiness of an institution and how do the leverage ratios of banks and mutual funds differ?

Response: The leverage amounts of registered investment companies can vary depending on the derivatives and other senior securities used, and the cover methods utilized. The Commission has stated that "[l]everage exists when an investor achieves the right to a return on a capital base that exceeds the investment which he has personally contributed to the entity or instrument achieving a return." The Commission also has stated that leveraging of a fund's portfolio "magnifies the potential for gain or loss on monies invested and, therefore, results in an increase in the speculative character of the investment company's outstanding securities." In short, leverage amplifies both negative and positive portfolio performance, and may significantly impact the overall risk/reward profile of a fund.

As a general matter, registered investment companies (both closed-end and mutual funds) are limited in their use of leverage. Specifically, registered investment companies are subject to Section 18 of the Investment Company Act of 1940, which protects investors against the potentially adverse effects of a fund's issuance of "senior securities." Congress' concerns underlying the limitations in Section 18 included, among others, (i) potential abuse of the purchasers of senior securities; (ii) excessive borrowing and the issuance of excessive amounts of senior securities by funds which increased unduly the speculative character of their junior securities; and (iii) funds

operating without adequate assets and reserves. To address these concerns, Section 18 of the Investment Company Act requires open-end funds (e.g., mutual funds) to limit their senior securities to bank borrowings with 300% "asset coverage," and closed-end funds to have 300% asset coverage of senior securities representing indebtedness. "Asset coverage" for these purposes means the ratio of (i) a fund's total assets, less all non-senior security liabilities and indebtedness, to (ii) the fund's aggregate amount of senior securities representing indebtedness.

Notwithstanding Section 18's asset coverage requirements, the Commission has stated that, instead of complying with the statutory 300% asset coverage requirement, funds could cover certain derivative positions by segregating liquid assets equal to the fund's future potential liability. Subsequently, in no-action letters and other more informal contexts, the staff applied this asset segregation cover approach to additional derivative transactions, and explained that the amounts to be segregated depend on the instrument. It is also important to note that fund investors receive significant disclosure regarding the investment program and any attendant risks.

3. Earlier this year, former Federal Reserve Board Chairman Ben Bernanke said that equity mutual funds are "not runnable", or subject to a run on deposits like banks. Do you agree with Mr. Bernanke?

Response: I agree with former Chairman Bernanke that a run on deposits at a bank is a very different event, with very different outcomes, than investors redeeming money from an equity mutual fund, even in large volumes. Pursuant to section 22(e) of the Investment Company Act of 1940, equity mutual funds, like all other mutual funds registered with the SEC, are required to provide shareholders a right of redeemability, and the fund cannot postpone the date of payment of the proceeds of a shareholder redemption request for more than seven days. As such, investors in an equity mutual fund theoretically could redeem their securities en masse over a very short period of time. In the case of an equity mutual fund, however, such redemptions would be satisfied by cash on hand at the fund and by the fund's selling a portion of the equity securities it holds. Those securities would be sold in the equity markets at a market-based price. Unlike a bank, a redeeming shareholder of an equity mutual fund is not guaranteed to receive his or her principal, but has a right to receive only his or her proportionate share of the value of the fund based on the fund's valuation next-computed following the shareholder's redemption. Additionally, the main trigger for run on a bank is a concern about potential insolvency, and one of the main negative outcomes of a run on a bank is the bank could become an insolvent institution, thereby spreading risk to its counterparties. Equity mutual funds, on the other hand, do not pose insolvency risk and do not serve as lenders or traditional counterparties to other financial institutions.

4. In a free market, we accept that firms might fail and investors in those firms may incur losses. SIFI designation essentially marks an institution as "cannot be allowed to fail." In the comments to the OFR study, many experts stated they do not believe asset managers

pose a systemic risk—or a risk to the entire financial system. Should the federal government seek to insure a firm can't fail simply because it is large, even if a failure would not cause any systemic financial distress?

Response: The size of a nonbank financial institution is one of many factors the FSOC may consider in designating a firm for supervision by the Board of Governors of the Federal Reserve System. Under Section 113 of the Dodd-Frank Act, the FSOC may designate a nonbank financial company, "if the Council determines that material financial distress at the US nonbank financial company, or the nature, scope, size, scale, concentration, interconnectedness, or mix of the activities of the US nonbank financial company could pose a threat to the financial stability of the United States." The statute further lists ten statutory factors that the Council "shall consider" in making such a determination. In addition, in a final rule and interpretative guidance issued by FSOC on April 11, 2012, the Council further explained how it would make these determinations. In assessing the risk to financial stability posed by a nonbank financial institution, the Council will consider six categories that subsume the ten statutory factors. Those categories guide the designation process, and are (1) interconnectedness; (2) substitutability; (3) size; (4) leverage; (5) liquidity risk and maturity mismatch; and (6) existing regulatory scrutiny. An important step of the designation process is an assessment of whether an entity could pose a threat to the financial stability of the United States. As part of this process, the Council looks at a number of factors in connection with this assessment, with size of an entity being only one. Thus, while size alone may not lead to designation, an entity that FSOC determines does not pose a threat to the financial stability of the United States will not be designated.

5. I understand the SEC is planning to test certain mutual funds over the next several months to judge the riskiness of some newer, alternative strategies. It seems to me this is a logical move to monitor risk and innovations in the industry. Would you agree that the SEC, as the agency of jurisdiction and the most expertise, should be the primary voice in addressing potentially risky practices across the asset management industry?
As a member of FSOC, have you shared your concerns with your fellow members on the Council?

Response: Pursuant to the Investment Advisers Act and the Investment Company Act, the SEC has been regulating investment advisers and mutual funds and other investment companies since 1940, and therefore has nearly 75 years of institutional expertise and knowledge of asset management entities.

I have shared my view that we as a Council need to be open to relevant expertise, whether that expertise comes from FSOC members themselves or from outside sources. I also believe that the SEC, as the primary regulator of asset managers, should have a leading role in further informing the FSOC on asset managers and analyzing issues related to asset managers.

Why did FSOC move forward with its review of Fidelity and BlackRock, when the baseline study by OFR has been widely discredited, and FSOC has yet to hold its May 19th Conference on the asset management industry?

Response: I cannot speak on any firm-specific reviews. When analyzing the role of asset managers and the potential for systemic risk, it is important to obtain a variety of perspectives. The public comment letters submitted on the OFR Asset Manager Study have been informative to the overall discourse on asset management. In addition, as you indicated, FSOC held a public conference on Asset Management on May 19, 2014. The Conference featured three panels titled "Investment Risk Management by Asset Management Firms," "Asset Management and Risks Across the Broader Financial System," and "Operational Issues and Resolvability". Following the conference, and at the July 31, 2014 Council meeting, FSOC "directed staff to undertake a more focused analysis of industry-wide products and activities to assess potential risks associated with the asset management industry."

If FSOC decides to move forward with SIFI designations for asset managers, I am very concerned that the required additional regulatory oversight will be constructed though a 'bank lens', similar to the OFR study. Can you commit to advocating for industry appropriate metrics from your position on FSOC?

Response: Upon determining that a non-bank financial institution could pose a threat to financial stability of the United States under one of the two statutory determination standards articulated in Section 113 of the Dodd-Frank Act – whether that company is an asset manager, an insurance company, or any other type of non-bank financial institution – I believe it is important for FSOC and the primary regulators of such company to consider standards that are relevant and appropriate for that particular type of company and the types of risks that it could pose to financial stability. In addition, I believe the FSOC and the primary regulators of any designated company should work with the Board of Governors of the Federal Reserve System, as appropriate, to provide for standards that are tailored in a reasonable and effective manner.

Regarding Equity Market Structure:

1. High-frequency trading is now a hot topic among commentators and the media. As we have seen in our past hearings on market structure, it's one of the numerous issues the SEC's is grappling with as our markets are changing and adjusting to new technology. In your testimony, you indicate that the SEC will conduct a thorough, data-driven review of market structure. Can you provide some examples of how you are looking into the potential costs and benefits of high-frequency trading, specifically?

Response: The SEC uses a variety of tools to analyze high frequency trading. Examples include our Market Information Data Analytics System, or MIDAS, and the economic literature on high-frequency trading (HFT).

MIDAS is an externally hosted market information and data analysis system which combines advanced technologies with empirical data to promote better understanding of markets. Research with MIDAS shows, for example, that the speed of those taking liquidity seems to keep pace with the speed of those canceling quotes, suggesting that slowing the ability of liquidity-providers to cancel their quotes without similarly slowing the ability of liquidity-takers to access those quotes would not necessarily slow the market itself, but could disadvantage those who provide liquidity compared to those who take liquidity. MIDAS data also show that the cancel-to-trade ratio for exchange-traded products (ETPs) is significantly higher than for corporate stocks. This could be a result of the structural differences between how stocks and ETPs trade.

The SEC also recently released on its equity market structure website a staff review of recent empirical economic literature on HFT and its impact on the markets. In general, this review illustrates that primarily passive HFT strategies appear to have beneficial effects on market quality, such as by reducing spreads and reducing average intraday volatility. In contrast, primarily aggressive HFT strategies can raise potential concerns, particularly with respect to their impact on market volatility and institutional execution costs.

Questions for the Record – Full Committee
From: Congresswoman Kyrsten Sinema
Date: Tuesday, April 29, 2014
Title: "Oversight of the SEC's Agenda, Operations, and FY 2015 Budget Request"
Questions for SEC Chairwoman Mary Joe White:

1.) You mentioned in your testimony that the Commission is currently conducting the review of the accredited investor definition as it relates to natural persons, as mandated by the Dodd-Frank Act. Can you provide any additional information as to where the Commission is on this matter?

Response: Commission staff, including staff from the Division of Corporation Finance and the Division of Economic and Risk Analysis, are currently engaged in a comprehensive review of the accredited investor definition. As part of this review, the staff is evaluating the impact that any change in the income and net worth thresholds would have on capital formation and investor protection. In addition, the staff is considering and independently evaluating alternative, non-financial criteria for the accredited investor definition, such as professional or educational background, experience in private placement investments or reliance on registered brokers or investment advisers. The results of this review will help to inform the Commission's consideration of whether to change the definition of accredited investor. Any possible changes to the definition would subsequently occur through the notice and comment rulemaking process, which would involve a thorough economic analysis.

2.) I understand the SEC is examining whether the existing net worth and income tests are appropriate measures that should continue to be used. Are you aware of any studies that correlate net worth to investor sophistication?

Response: SEC staff has identified economic studies examining correlations between wealth and investor sophistication. The staff is evaluating whether the underlying data and ultimate conclusions of these studies provide insight into the characteristics of current U.S.-based investors. Among other issues being considered are the sample size, nature, and country of households utilized.

Wagner QFRs for SEC Chair Mary Jo White

1. Given the value of financial advice, would you be concerned by a regulatory action that threatened to cause lower and middle income investors to lose their ability to access affordable investment advice?

Response: The SEC has a three-part mission: to protect investors; to maintain fair, orderly, and efficient markets; and to facilitate capital formation. I believe an important goal in pursuing the SEC's regulatory actions should be to make sure that investors, particularly retail investors, are appropriately protected and have access to the type of investment advice that they need and can afford. For example, the potential effects on investors, particularly retail investors, are a key consideration in considering whether to use the authority provided to the Commission under Section 913 of the Dodd-Frank Act.

2. Has the SEC been collaborating with Labor Secretary Thomas Perez on their fiduciary rulemaking. Please describe any and all discussions you, or other members of the SEC, have had and what was discussed. What actions do the SEC plan to take based on these discussions?

Response: I have met with Secretary Perez in person several times and we have spoken over the phone about the DOL's fiduciary rulemaking. The SEC staff has also met with DOL staff on a number of occasions, providing technical expertise regarding the Commissions' regulation of investment advisers and broker-dealers, including disclosure requirements and our approach to the conflicts that surround, among other things, principal trading, differential compensation, and receipt of commissions. Our economists and DOL economists have discussed cost-benefit related issues as well as relevant academic studies.

I recognize the concerns about consistency and the impact the DOL's rulemaking may have on Commission registrants, particularly broker-dealers. Of course, because the DOL has its own perspectives, jurisdiction, and statutory authority, any rules the agencies adopt may or may not differ. My goal and that of my staff is to continue to work together to coordinate our rules as much as is appropriate under our different statutory standards and mandates.

3. Have you and Secretary Perez discussed the situation in the U.K., where regulators implemented a rule banning commissions for financial advisors that resulted in a decrease in the ability of lower and middle income investors to access financial advice, a so-called "advice gap"? If so, did you discuss how to avoid similar adverse consequences for US investors?

Response: I am aware of the UK's Retail Distribution Review and the implementation of its adviser charging rules, and I understand that my staff has discussed with DOL representatives the potential impact on retail investors if they do not have access to

affordable investment advice for their retirement savings. My consideration of any potential rulemaking by the Commission will certainly take into account the potential impact on retail investors' access to affordable investment advice. In addition, any Commission proposal would solicit public comments to better inform our efforts. I am committed to working with the Commission's economists in evaluating the costs and benefits of any potential approach so that we can further our goal of protecting investors without imposing unnecessary or unduly burdensome costs on them or the industry.

4. In recent testimony before the Oversight Subcommittee, OFR's director said that they participated in a meeting with the SEC regarding OFR's Asset Management Report. Would you please provide a comprehensive list of all meetings held between the OFR and the SEC regarding OFRs Asset Management Report?

Response: SEC staff met both in person and telephonically with OFR staff to discuss the study. Based on an informal review, SEC staff met with OFR staff approximately thirteen times between January 2013 and September 2013.

5. In recognition of the SEC's mission to facilitate capital formation, it has, in the past, taken action to expand access to capital for smaller companies. For example, in 2007, the SEC expanded access to the simpler, and more cost-effective, "shelf registration" on Form S-3 for SEC reporting companies with less than $75 million in public float. Has the SEC found any evidence of increased enforcement activity or cases of fraud it believes are a result of its 2007 expansion of shelf registration for smaller reporting companies on Form S-3?

Response: The staff does not specifically track enforcement activity related to the 2007 expansion of shelf registration, but generally is not aware of a significant increase in enforcement actions related to such change.

6. How many total Electronic Communications Privacy Act related subpoenas has the SEC issued in the last 8 calendar years? How many in each individual year for the past 8 years? How many were challenged? How many were quashed or modified?

Response: As part of the investigative process, SEC staff often issue subpoenas, which can number in the thousands over the course of any given year. The SEC does not, however, track the statutes related to each subpoena or the number of times its subpoenas are challenged, quashed, or modified. One exception to that practice is subpoenas issued to financial institutions covered by the Right to Financial Privacy Act, which imposes certain unique procedures and reporting requirements.

7. Does the SEC provide notice to the individual when the content of his or her emails is subpoenaed from an ISP? Why or why not?

Response: When the SEC has subpoenaed e-mail content from third-party ISPs, its practice has been to provide notice to the individual subscribers to give them the opportunity to challenge the subpoena in court pursuant to the Electronic Communications Privacy Act, 18 U.S.C. § 2703(b)(1)(B)(i).

8. In your letter of April 24, 2013 to Senator Leahy regarding your opposition to S. 607, the ECPA Amendments Act of 2013, you said the bill could have a significant negative impact on the SEC's enforcement efforts. As support, you cited a case in which the SEC obtained an email through an ECPA subpoena to the individual's internet service provider. What was the name of the case? Please describe why subpoenaing the email from the ISP was the only way to get evidence of the civil violation.

Response: The complaint referenced in the April 24, 2013 letter pertains to the matter of *SEC v. Len A. Familant and Paul Greene*, Civil Action No. 1:12-CV-00119-JEB (D.D.C. 2012). As noted in the letter, the e-mail evidence "was particularly important because, as alleged in the complaint, the defendants had carefully concealed their scheme. At the time the Commission subpoenaed the ISP, the individual had failed to produce his personal e-mail in response to a document subpoena the SEC had issued him almost a year earlier."

9. Mutual funds are currently subject to comprehensive regulation, like strict limits on leverage, diversification requirements and minimum standards for liquidity. Can you discuss how these regulations distinguish mutual funds from other financial institutions and reduce their potential to pose systemic risk?

Response: As you indicated, mutual funds and other investment companies registered with the SEC under the Investment Company Act of 1940 are subject to certain substantive restrictions on their investments. Among other things, mutual funds are limited in their use of leverage and may only borrow from banks, subject to a 300% asset coverage requirement on the amount of such borrowings. In addition, mutual funds may not invest more than 15% of their net assets in illiquid securities, which includes securities for which market quotations are not readily available, restricted securities and other investments that generally cannot be sold within seven days at approximately the price at which they are carried by the mutual fund. With respect to diversification, a mutual fund that identifies itself as diversified is limited, as to 75% of the value of its total assets, to investing no more than 5% of its assets in the securities of a single issuer.

In addition to these substantive investment restrictions, mutual funds and other SEC-registered investment companies are required to provide quarterly public reports (with a 60 day lag) of their portfolio holdings, are limited in their ability to transact with affiliates, and are subject to oversight by an independent board of directors.

Many other financial institutions, whether banks or non-banks, are not subject to the

same level of investment restrictions, portfolio transparency, affiliated transaction prohibition, or independent board oversight. Together, these regulatory features of mutual funds are designed to address investor protection issues.

10. If a mutual fund is designated as a SIFI, one consequence is that investors in that fund could be assessed fees to bail out a distressed financial institution deemed systemically important, such as a large bank holding company. My constituents invest in mutual funds for their most important savings goals – such as saving for retirement, making a down payment on a first home and saving for their children's education. The prospect of their savings being tapped by the government to help bail out a failing financial institution is troubling to me. Can you discuss this consequence and the potential impact for investors?

Response: As your question indicates, mutual funds do not have excess capital. Each investor owns a pro-rata share of the mutual fund's assets, minus expenses. One impact, therefore, of any designation of a retail investment vehicle like a mutual fund, would be the economic effect such a designation would have on the investment return of the investors in the fund. Among other things that potentially would result from a designation are the imposition of capital standards as well as the imposition of fees that are charged to bank and non-bank systemically important financial institutions.

11. FSOC is considering whether asset managers or their activities pose risks to financial stability and, if so, whether an appropriate response is to designate managers or funds for prudential regulation and supervision by the Federal Reserve. Similar discussions are taking place in the global arena, as evidenced by a recent Financial Stability Board consultation. Fund managers invest as agents, not principals – which means that they do not take fund assets onto their balance sheets. Unlike banks, mutual funds don't need capital to absorb investment losses because fund investors understand that they are taking on risk when they invest in a fund.

Funds, after all, are simply conduits that allow my constituents to invest in the capital markets in a diversified and relatively cost-effective manner. Can you elaborate on how these and other aspects of the structure and regulation of mutual funds and their managers make it highly unlikely that they pose a systemic risk?

Response: As you indicate, mutual funds and other SEC-registered investment companies are investment vehicles. They invest primarily in the domestic and global securities markets. Unlike banks and certain other financial institutions such as insurance companies, funds do not promise to return principal or guarantee a prescribed return or a set payment by a specific date or upon a specific event. Investment losses are borne by a fund's investors and not by the asset manager. Asset managers function as agents for their principals, the funds to whom they owe a fiduciary duty. In addition, the assets under management are owned by the fund, so the financial strength of an asset manager does not pose potential harm to a fund for which they provide advisory services.

Mutual funds and other SEC-registered investment companies are required to provide disclosure to investors, and potential investors, detailing the nature of the investment risk they undertake. In addition, mutual funds are subject to substantive investment restrictions and also are required to provide quarterly public reports (with a 60 day lag) of their portfolio holdings, are limited in their ability to transact with affiliates, and are subject to oversight by an independent board of directors. Together, these structural and regulatory features of mutual funds are designed to address investor protection issues.

12. SIFI designation doesn't seem necessary for the asset management industry because the industry is already subject to SEC oversight. Can you discuss the SEC's current efforts with respect to regulating and monitoring the asset management industry?

Response: Pursuant to the Investment Advisers Act and the Investment Company Act, the SEC has been regulating investment advisers and mutual funds and other investment companies since 1940, and therefore has nearly 75 years of institutional expertise and knowledge of asset management entities. The Commission's efforts in administering these statutes is multi-faceted and focus on minimizing financial risks to investors from fraud, self-dealing and misleading or incomplete disclosure through rulemaking; registration, review and investor disclosure; risk assessment; examinations and enforcement. The SEC has approximately 650 professionals focused on the regulation, monitoring and on-site examination of investment advisers and funds.

One of the fundamental tenets of investment adviser regulation is that, as declared by the Supreme Court in 1964, investment advisers are fiduciaries. As such, asset managers must put their clients' interests before their own and mitigate and disclose any conflicts of interest, such as trading for their own account and arrangements with brokers.

In addition, asset managers with assets under management above $100 million are subject to an SEC-administered regulatory regime under the Investment Advisers Act. This regime includes custody and recordkeeping requirements; restrictions on frontrunning, principal trading and misuse of material non-public information; and an on-site examination program. Asset managers are subject to comprehensive public disclosure requirements, including disclosure of disciplinary history, business organization and personnel, conflicts of interest and private fund census information. Much of the asset manager regulatory regime has focused on establishing a fundamental separation between investment advisers, on the one hand, and the assets of their clients, on the other – whether those assets are in a fund or managed accounts.

In addition, mutual funds, exchange-traded funds, and other registered investment companies are operated pursuant to a comprehensive regulatory regime under the Investment Company Act. That regime imposes substantive limits on investments by the mutual funds, including leverage, liquidity, and diversification standards; mandates a minimum level of independence in governance; and prohibits most transactions with

affiliates. In addition, mutual funds are subject to on-site examination by SEC examiners.

The SEC staff reviews fund and adviser disclosures; answers interpretive questions; conducts risk-based monitoring; prepares recommendations for new rules and rule amendments; meets with asset management executives to discuss issues such as firm growth, risk management, and market trends; and engages in rulewriting and policy analysis. The risk monitoring program includes monitoring trends in the asset management industry, analyzing industry data and carrying out targeted examinations.

The SEC also deploys staff from 12 field offices across the country to conduct on-site examinations of advisers and their funds. All of these regulatory efforts supplement the SEC's strong enforcement program, which includes the SEC's Asset Management Unit within the Division of Enforcement.

With respect to industry monitoring, the SEC also focuses on geo-political, natural disaster and market events that can have an impact on SEC-regulated funds and advisers. Regarding such events, we focus on maintaining communication with affected asset managers, reviewing disclosures to investors and assessing the impact on investors' ability to access funds or trade securities.

I have asked the Division of Investment Management staff for an "action plan" to enhance our asset manager risk management oversight program. Among the initiatives under near-term consideration are expanded stress testing, more robust data reporting, and increased oversight of the largest asset management firms.